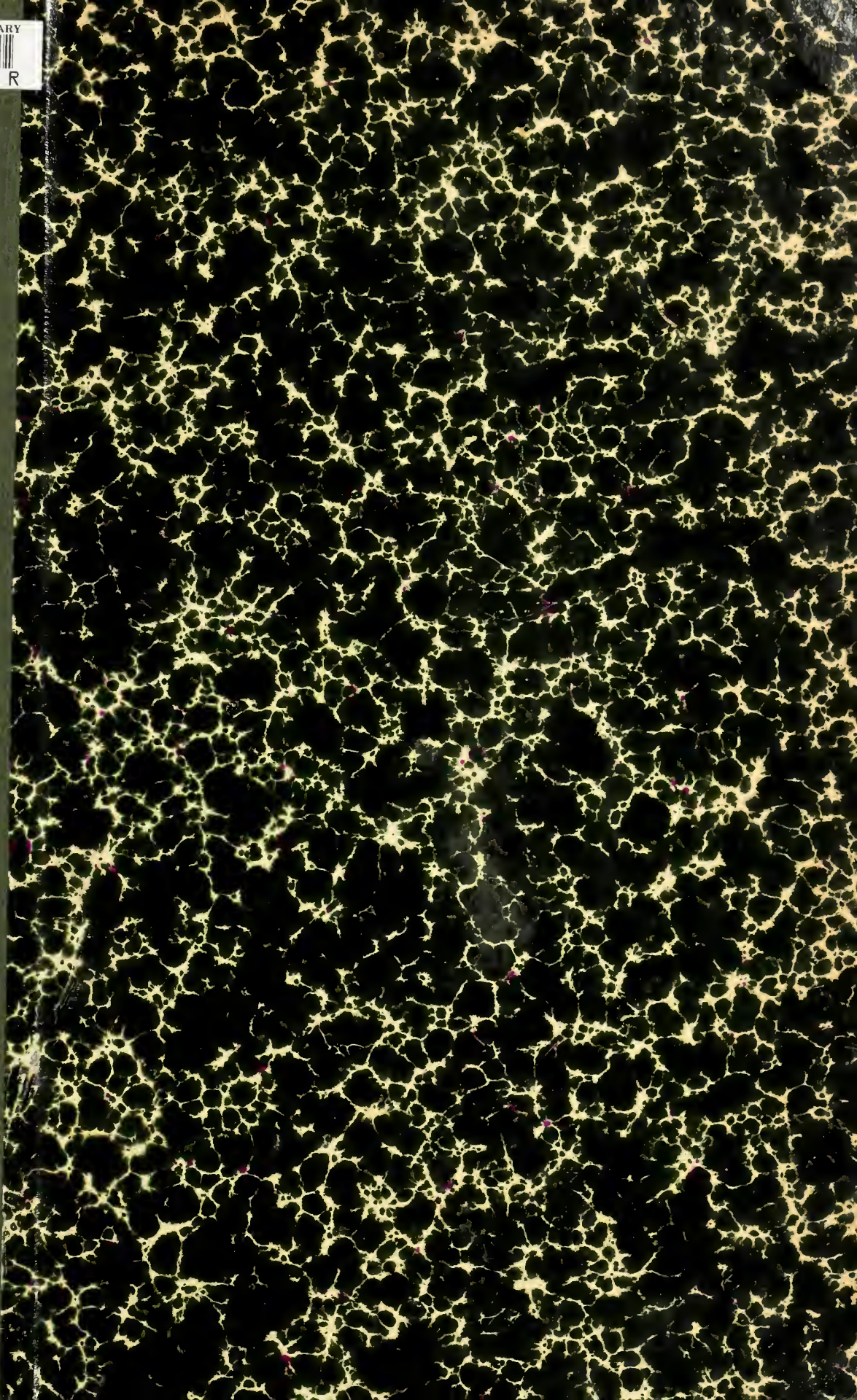


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# THE JOURNAL OF THE TENNESSEE State Medical Association

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ISSUED MONTHLY under Direction of the Trustees

H. H. SHOULDERS, M.D., Secretary and Editor

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## CONTENTS

ENURESIS—William E. Van Order, M.D., Chattanooga	1	NEWS NOTES AND COMMENTS	31
SUBCUTANEOUS OXYGEN THERAPY—Watt Yeiser, M.D., Columbia	5	WOMAN'S AUXILIARY	32
CONSTITUTION, BY-LAWS, AND PRINCIPLES OF MEDICAL ETHICS OF THE TENNESSEE STATE MEDICAL ASSOCIATION. REVISED, 1936	7	MEDICAL SOCIETIES	33
EDITORIAL	24	COMMITTEES	35
DEATHS	31	LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION	36
		ABSTRACTS OF CURRENT LITERATURE	37
		LIST OF ADVERTISERS IN THIS ISSUE	XII

THIS ASSOCIATION DOES NOT OFFICIALLY INDORSE OPINIONS PRESENTED IN DIFFERENT PAPERS PUBLISHED HEREIN  
ENTERED AS SECOND-CLASS MATTER, MAY 29, 1908, AT THE POST OFFICE AT NASHVILLE, TENN., UNDER THE ACT OF MARCH 3, 1879.

## Old Way... CURING RICKETS in the CLEFT of an ASH TREE

FOR many centuries—and apparently down to the present time, even in this country—ricketic children have been passed through a cleft ash tree to cure them of their rickets. Frazer\* states that the ordinary mode of effecting the "cure" is to split a young ash sapling for a few feet and pass the child, naked, either three times or three times three through the fissure at sunrise. As soon as the ceremony is performed, the tree is bound tightly up and the fissure plastered over with mud or clay. The belief is that just as the cleft in the tree will be healed, so the child's body will be healed, but that if the rift in the tree remains open, the deformity in the child will remain, too.

\*Frazer, J. G.: The Golden Bough, vol. 1, New York, Macmillan & Co., 1923.

## New Way...

### Preventing and Curing Rickets with OLEUM PERCOMORPHUM

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# THE JOURNAL

OF THE

## TENNESSEE STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE

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Volume XXX

JANUARY, 1937

No. 1

### ENURESIS\*

WILLIAM E. VAN ORDER, M.D., Chattanooga

ENURESIS, meaning the involuntary emptying of the bladder, will be considered as a condition occurring in children of about three years or over. It is a symptom; the underlying causes may be classified as psychogenic or organic. Regardless of the etiology, the distressing inconvenience to the parents necessitates our periodic perusing of literature to get everything we can for the advantage of these unhappy patients. It is very easy to consider this as an insignificant nuisance which will be gradually outgrown. A few cases may be, but not enough to justify this alibi for our lack of interest. The pediatrician and general practitioners are frequently confronted with this complaint, and should have readily in hand a procedure best adopted for determining the etiology and a practical therapeutic means to follow. Theoretically, very few complaints have such variable causes and so many different treatments. This paper is the result of an effort to formulate a means of approach to this problem and to present a practical means of handling such.

There is rarely any question about the complaint. The mother states that the child wets itself. A convenient outline for further inquiry is as follows:

At night, or day, or both.

Age of onset—continuous or intermittent since onset.

Number of nights weekly.

Number of times a night.

How soon after retiring.

Does patient awaken?

Frequency of urination during day.

Amount of fluids taken daily and when.

Familial (do other children in family have habit?).

Heredity—present in parents when children.

Allergy in parents and in children.

Previous treatment and methods of control:

Fluids restricted.

Awakened at night. How often?

Medicines prescribed.

Punishment. What type?

Emotional concern.

Arguing and rowing.

Babying, shaming, rewards.

Attitude of family.

Nervous system:

Emotional condition—particular parents.

Nervous, high-tensioned type.

Play—active, quiet.

Disposition.

Sleep—sound, restless.

Sleeping arrangements.

Masturbation.

Personal habits—careless and slovenly, careful and neat.

Physical examination.

General nutrition.

Special factors thought by parents to have an influence.

\*Read before the Tennessee State Pediatric Society, Memphis, April 14, 1936.

### Urine examination.

Interpretation of these findings had best be made in summarization, considering all answers in the group. Each has its significance, however.

The significance of nocturnal alone may suggest lack of training by careless parents—or psychogenic origin. Of diurnal, more likely to be organic. When both exist, organic or inflammation should be first suspected. The age of onset reveals if child ever had control of bladder, and if so, a possible association with an outside influence existing at the time of onset. The persistency of the symptom—continuous or intermittent since onset—will suggest degree of severity of etiological factor, and probable amount of therapy required. The number of nights weekly and times a night also suggest severity, and if large amounts with thirst, diabetes. If soon after retiring, the patient may be trying to get attention. If continued throughout the night without awakening, a urethrotigonitis or other inflammatory condition may be interrupting the micturating reflex mechanism. The frequency of urination during the day is likely to reveal irritation, also, or diabetes. The amount of fluids taken daily and when increases emptying. If taken in large amounts late in afternoon, one might expect need for voiding more frequently at night. If other children in family have the same trouble, one may suspect that suggestion has played a part. If ever present in parents, it is often excused and neglected by them. An allergic condition may be etiological due to the generalized genitourinary mucosal irritation often present. Tuberculosis might cause the same.

It is necessary to ascertain the previous treatments and their results. Many remedies do more harm than good, especially home treatments. No medicine is specific. The restriction of fluids, awakening at night, and how often tell us what efforts are being expended and with just what concern the parents are giving. Punishment has usually been tried in all cases, which is pitiful, to say the least. It invariably makes the condition worse, especially when an unstable nervous system al-

ready exists. If the child manifests an emotional concern, it usually denotes the desire to control, which is a helpful adjunct to treatment. Arguing and rowing only make the child emotionally more unstable with associated nervous manifestations. A great deal of attention by the parents, especially rewards, shaming, and babying, only causes the child to become more conscious of his difference from other children. The attitude of the family promotes either indifference or willingness to help.

In the consideration of the nervous system of the child it must not be forgotten that the superficial nervous manifestations of the parent give a valuable insight into the child's mechanism. Children are often nervous only because of being in a nervous environment. One recognizes the fact that children copy what they see done more quickly than what they are told to do. A soothing manner helps. It has been recognized that enuresis is often associated with fingernail biting, thumb-sucking, temper tantrums, speech defect, jealousy, or incompatibility of parents. It has been said that enuresis acts as a common denominator to at least three of this group. Therefore, when present with three or more, one may usually assume a psychogenic origin. The activity in play, and when supposedly resting, is an index to normal health, as is one's general disposition. The restless sleeper indicates a physical or nervous abnormality, but may be either the cause or effect of enuresis. If a child masturbates, it frequently causes a urethritis, resulting in bed-wetting. Nocturia may give a sensory pleasure analogous to masturbation, and may persist as a result. In older children the personal habits give an insight into the child's resistance efforts. A careful and neat child is more likely to manifest voluntary control, whereas one who is careless and slovenly may not care.

A careful urinalysis is essential. It may reveal pyuria, bacteruria, sugar, or other abnormalities. Each usually coexists with some anatomical defect, and may individually influence enuresis.

A physical examination is important.



Any factor leading to easy fatigability, or emotional unrestraint, as well as some physical factors per se, may influence a tendency to enuresis. However, the general idea that enuresis is influenced by removal of tonsils and adenoids, eyestrain, circumcision, vaginitis, pyelitis, and tonics, has been disproven by many investigators. The correction of these is often indicated for the purpose of increasing one's general resistance, however.

The most important part of the examination of cases not responding to usual neuropsychiatric treatment should be done by the genitourinary specialist. M. F. Campbell, of New York City, has done the latest research along this line. He recently reported the result in 330 cases in which ordinary treatment had failed. The number from which these were selected was not published. Uropathology was found in two-thirds. There was rarely anything in the symptomatology to differentiate the functional disturbances from those due to obstruction, for example, so that a urological examination became imperative after two to four months' medical and psychiatric treatment. Campbell estimated that ninety per cent were functional. Many were cured by cystoscopy alone. Congenital lower-tract obstruction and inflammation were extremely common. The urine was examined by culture, for it was found that bacterial infection often causes urethrotrigonitis, posterior urethritis, or prostatitis. In his series of 330, infection was found in twenty-five per cent. About sixteen per cent had residual urine, which suggested a lower-tract obstruction, or neuromuscular disease, in both cases predisposing to infection and variable changes in the upper urinary tract.

The next procedure was to X-ray the genitourinary tract, especially for stone or spinal defects (such as spina bifida occulta which is said to be present in ten per cent of normals).

Then came cystography in which five per cent sodium iodide or three per cent solution of Iopax, neo-skiodon, etc., was used. This yielded little information of value.

The cystourethroscopic examination was

next. This procedure was done with little trouble in children. Many disorders were here observed directly. Urethrotrigonitis was more frequent in girls. This responded to periodic (every three or four weeks) urethral dilatation, and a local installation of 1:500 solution of silver nitrate at ten to fourteen day intervals.

Congenital obstruction along the urethra was most common in boys. Stricture at the meatus was very common. It was never seen due to phimosis, however. Campbell noted several cases of enuresis beginning after circumcision. Prostatitis and verumontanitis were next in frequency. In the series of 330 cases, one-third had no demonstrable uropathology. These were referred back for more neuropsychiatric treatment.

He concluded that it was not safe to assume that the condition would be outgrown.

The care of the patient before resorting to the thorough genitourinary examination calls for the inauguration of a procedure which all parents may find convenient to adopt.

The following is an outline to which most all psychogenic cases will respond:

Stop all punishments or any action that will arouse fear in connection with the habit.

Stop shaming.

Stop all arguing and rowing and dominating unreasonably—the question of the use of the toilet should not be a battleground for discipline.

Stop all displays of emotional concern and substitute an indifferent attitude. Treat mishaps in a casual and kindly way so as not to concentrate the child's mind on the failures and difficulties.

Stimulate interest in success by much praise, ado, and rewards for dry nights—avoid mention of wet nights.

Never express lack of faith in the child.

Keep a gold star calendar of dry nights only.

Stop "babying" the child by overaffection, etc.

Never mention to the child that he has "weak kidneys," etc., or that he will in after years outgrow the habit.

## GENERAL RULES

1. Restrict fluids (milk, water, soup, etc.) after four P.M. The evening meal should be light and dry; i.e., cereal or custard or junket, bread, jello, fruit, etc. Avoid coffee, tea, salt, pepper, and condiments at all meals. Especially avoid salt and sweets after four P.M., as these increase thirst.
2. Emptying the bladder before retiring and again at 10:00 or 11:00 P.M. Be certain that child urinates freely at these times.
3. Rest. An afternoon nap if possible; no excitement or high tension after five P.M., such as exercise, reciting, competitive games, loud laughter, movies, or exciting radio program. The child should sit down and play quietly after five P.M. The child should not become

too fatigued before retiring and should retire early. Elevating the foot of the bed six inches is advisable.

The use of medicines has been widely explored. Atropine has found favor perhaps longer than most. It cannot be recommended—it does not eliminate the cause, it lessens to some extent the symptom. Diuretics in the morning to lessen urination later does more harm than good. Sedatives cause more complete unconsciousness, and lessens probability of awakening and caring for oneself. One investigator observed that many enuretics had low blood sugars and recommended sweets unsuccessfully.

One must concede that if results are not obtained in three or four months the genito-urinary specialist should be given full charge.



## SUBCUTANEOUS OXYGEN THERAPY\*

WATT YEISER, M.D., Columbia

OXYGEN IS THE MOST abundant of all the elements and is essential to all forms of life, yet, strange to say, it was discovered only a little over one hundred fifty years ago by Joseph Priestly. During the past ten years a great amount of literature has appeared on oxygen therapy, especially of the concentration inhalation type, using tents and oxygen chambers. The average rental cost for an outfit of this kind is about twenty to twenty-five dollars per day. This item of cost puts it in the luxury class and as a rule well beyond the average family budget. In addition to this the cost of special nurses which are necessary makes it more prohibitive. Oxygen therapy, therefore, can be afforded only by the very wealthy.

For some unknown reason little attention has been given to the most economical and efficient method of oxygen therapy. I refer to subcutaneous oxygen therapy. Such a small amount of oxygen is used by this very efficient method that the cost of the gas is negligible.

Oxygen is readily diffused from one tissue to another. It is taken up by the blood wherever available and distributed to all parts of the body.

## METHODS OF ADMINISTRATION

In the administration of oxygen subcutaneously it is necessary to have proper control and regulation of gas pressure and measurement of the amounts given. The machine adopted in Europe for this purpose is the one designed by Dr. Bayeaux of France. Other machines, American made, are now in use in this country. The machine that I am using is the Singer-Phillips pneumothorax machine with the manometer disconnected and the tubing attached to the tank.

## SUBCUTANEOUS VS. INHALATION

The reason that I prefer the subcutaneous method to the inhalation type is because

of the fact that so many times the alveoli of the lung are obstructed and the patient does not get the oxygen by inhalation whereas with the subcutaneous method he cannot help but absorb it. In other words one feels sure that by the subcutaneous route it will reach its destination.

The primary purpose of oxygen therapy whether inhalation or subcutaneous is the combatting of anoxemia. The clinical importance of this has been recognized for many years and the time will soon come when the degree of anoxemia in certain diseases will be considered as regularly as the leucocyte count is now considered in appendicitis. The oxygen content of the blood is rarely of routine concern in the minds of the majority of the physicians because of the fact that knowledge of anoxemia is relatively newly acquired and certainly complex. The method of determining the oxygen saturation of the blood needs to be simplified. The most practical test for determination of anoxemia is by the injection of two or three hundred cc. of oxygen subcutaneously. If there is no anoxemia the oxygen remains unabsorbed for a long while, whereas if anoxemia exists the oxygen is rapidly absorbed with marked relief of symptoms. Then the injections and amounts required can be repeated as necessary to relieve the condition. I have not used the oxygen tent but it is my information that it is given at a concentration of sixty per cent or higher. Common sense reasoning leads me to the conclusion that at this concentration it is not entirely harmless to an already inflamed lung tissue thereby nullifying the expected benefits. On direct communication with some of the best men that I have ever known, they have told me that the inhalation methods of treatment were very much overestimated.

Now going back to the subcutaneous method, the most remarkable feature is that injections of such small amounts of oxygen are so efficient. It seems unbelievable to one knowing that such large amounts of

\*Read before the Middle Tennessee Medical Association, Woodbury, November 12, 13, 1936.

oxygen gas are required by the inhalation method, when you stop to consider that oxygen deficiency is really rather minute and can be easily supplied by the subcutaneous injection of the gas. The amount of deficiency is in proportion to the difference between the supply and the requirements which is usually a small amount. It is comparable to the old fable that it was "the last straw that broke the camel's back." This "last straw" so often comes in pneumonia cases when just a little help would carry them over.

#### DOSAGE

The average dose of oxygen when given subcutaneously, for the adult, is five hundred to one thousand cc. and repeated as often as it is absorbed. This can be easily ascertained by the crepitation. The average pneumonia patient would be quite comfortable on one or two injections per day. It will be necessary to give it more often if there is much cyanosis or air hunger. The distress and anxiety of these poor patients is markedly relieved and they feel much easier until their oxygen has again been exhausted and their dyspnea begins to return. Then of course the injections should be repeated.

#### INDICATIONS

Oxygen therapy is indicated in all conditions which are complicated by symptoms of anoxemia or asphyxia. Remember it is compatible with any and all kinds of treatments. The following are some of the more important conditions in which subcutaneous oxygen is indicated:

Certain cases of pneumonia in which they have their first indication of cyanosis or dyspnea or rapid breathing; or in pneumonias with delayed resolution or in those with very little or no drainage; aftereffects of prolonged anesthesia; aftereffects of hemorrhage and anemia; asthmatic attacks; postoperative and other forms of shock; pulmonary tuberculosis; pulmonary edema, septicemia, toxemia, uremic convulsions, and whooping cough.

It is my belief that in the near future subcutaneous oxygen therapy will be regarded as important where required as

fluids are today in the dehydrated patient. When the importance of the action of asphyxia on the body cells is more thoroughly appreciated, oxygen will be freely used. Unless one is burned alive, the tissues of the body always die of asphyxia. It is evidently asphyxia of the brain cells that causes the pneumonia patient to become unreasonable, fretful, and mentally confused or delirious. The relief of this mental condition is most merciful and invaluable and justifies the use of the subcutaneous oxygen when it arises.

Dr. Raymond reports that he has repeatedly seen the subcutaneous injection of oxygen produce veritable resurrections. Dr. Melchior of Germany reports having given more than twenty-five hundred injections without having had any complications; the amounts he reports having used are from one-half litre to as much as eight litres at one injection.

T. S. Kirk reports in a British medical journal of having given subcutaneous oxygen in two hundred cases without any complications whatever. He says that it is a perfectly safe procedure.

A vital feature of course in a case of pneumonia where there is respiratory distress is to secure rest, and permit these patients to be comfortable thereby saving them from wearing themselves out struggling for breath. Oxygen is the sovereign remedy for any case of anoxemia and it is my opinion the subcutaneous route of giving it is the most effective as well as by far the most economical.

O. B. Simon reports having used it for fifty days, and the cost to him for this was not more than fifty cents. Compare this cost to an oxygen tent at \$20.00 per day, which would amount to \$1,000.00. This difference in cost perhaps explains why there has been no commercial exploiting of subcutaneous machines while the inhalation machines have been so widely advertised.

Advantages of the subcutaneous method:

1. Certainty of absorption and effects.
2. It is simple and easy given.
3. The simplicity of equipment which can be easily carried to any home.
4. Economy.

# CONSTITUTION, BY-LAWS, AND PRINCIPLES OF MEDICAL ETHICS OF THE TENNESSEE STATE MEDICAL ASSOCIATION REVISED, 1936

## CONSTITUTION AND BY-LAWS Of the Tennessee State Medical Association

### CONSTITUTION

#### ARTICLE I

##### NAME OF THE ASSOCIATION

The name and the title of this organization shall be "The Tennessee State Medical Association."

#### ARTICLE II

##### PURPOSES OF THE ASSOCIATION

The purposes of this Association shall be to federate and bring into one compact organization, the entire medical profession of the State of Tennessee and to unite with similar associations in other states to form the American Medical Association, with a view to the extension of medical knowledge, and to the advancement of medical science, to the elevation of the standard of medical education, and to the enactment and enforcement of just medical laws, to the promotion of friendly intercourse among physicians and to the guarding and fostering of their material interests, and to the enlightenment and direction of public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

#### ARTICLE III

##### COMPONENT SOCIETIES

Component Societies shall consist of those County Medical Societies which hold charters from this Association.

#### ARTICLE IV

##### COMPOSITION OF THE ASSOCIATION

SECTION 1. This Association shall consist of Members, Associate Members, Veteran Members and Honorary Members.

SEC. 2. The Members of this Association shall be Members of the component County Medical Societies who have been

certified to the Secretary of this Association and whose dues have been paid for the current year.

SEC. 3. Associate Members shall be commissioned officers in active service of the U. S. Army, Navy, and Public Health Service, who apply for membership in this Association, and are elected by a two-thirds vote of the House of Delegates.

SEC. 4. Veteran Members are those who have been members of component Societies for not less than twenty-five years, and who, because of age or impaired health, are made Veteran Members of their component Society.

SEC. 5. An Honorary Member is one who is a member of another State Association, or other reputable society, who is preeminent in general or special scientific work, whose name, with detailed information concerning his education and professional qualification, is presented in writing by three Members of this Association, and who is elected by a two-thirds vote of the House of Delegates.

#### ARTICLE V

##### HOUSE OF DELEGATES

The House of Delegates shall be the legislative and business body of the Association, and shall consist of (1) Delegates elected by the component County Societies; (2) ex-officio the Officers; (3) the ex-Presidents of the Association in attendance at that session.

#### ARTICLE VI

##### SECTIONS

The House of Delegates may provide for a division of the scientific work of the Association into appropriate Sections, as the need may arise.

#### ARTICLE VII

##### ANNUAL MEETINGS AND SESSIONS

SECTION 1. The Association shall hold an Annual Meeting at such time and place as hereinafter provided, and the Scientific



Sessions shall be open to all registered members and guests.

SEC. 2. The Scientific Session shall begin on the second Tuesday in April, except as provided in Chapter II, Section 3, of the By-Laws; the Sections shall determine the dates of their meetings.

SEC. 3. The place for holding each Annual Meeting shall be fixed by the House of Delegates provided; the Meetings shall rotate alternately between the three grand divisions of the State.

## ARTICLE VIII

### OFFICERS

SECTION 1. The Officers of the Association shall be a President, a Vice-President for each of the three grand divisions of the State, a Secretary, three Trustees\*, one from each grand division of the State, one of whom shall be elected annually by the Trustees as Treasurer of the Association, and ten Councilors, one from each Congressional District, and a Speaker of the House of Delegates.

SEC. 2. The President, three Vice-Presidents, Speaker of the House of Delegates and the Secretary shall be elected annually for one year. One Trustee shall be elected annually for three years. Five Councilors shall be elected annually for two years.

SEC. 3. The President, Secretary, and Speaker of the House of Delegates shall be ex-officio members of the Council.

SEC. 4. All Officers shall hold office until their successor is elected and assumes office.

SEC. 5. All Officers of the Association, except the Councilors, shall be elected on the third day of the Annual Meeting, but shall not assume office until their predecessor's year's work is completed.

SEC. 6†. No Member who has not been a member in good standing for five years next preceding the election, or who is not in attendance at the Meeting, shall be eligible for election as President or Vice-President.

## ARTICLE IX

### BOARD OF TRUSTEES

SECTION 1. The Board of Trustees composed of the retiring President, the Speaker of the House of Delegates and the three members of this Association, elected as heretofore provided, shall select its own Chairman, who shall be ex-officio Treasurer of this Association. The Trustees shall have entire control of the publication, the policy and the editorial and financial management of the Journal of the Association. It shall be authorized and empowered to make all contracts necessary for the conduct of the Journal.

SEC. 2. The Chairman of this Board, who is also ex-officio Treasurer of this Association, shall be the custodian of all the funds derived from the Journal.

SEC. 3. The Board of Trustees shall hold semi-annual meetings, one of which shall be held on the last day of the Annual Meeting, and such other meetings as the business of the Journal may require, subject to the call of the Chairman. The Board of Trustees shall make all expenditures of the funds of the Association, except as ordered by the House of Delegates, and render at the Annual Meeting a full and detailed account of all receipts and disbursements. In the event of a vacancy by death or resignation of any member of the Board of Trustees between the Annual Sessions of the Association, the Vice-President for that division of the State in which the vacancy occurs, shall fill the position until the next Annual Meeting.

SEC. 4. The Board of Trustees shall serve without compensation, except the Chairman, who is ex-officio the Treasurer, whose compensation shall be fixed by the House of Delegates; however, their actual expense in attending the meetings of the Board shall be paid out of the funds of the Association. This is not to apply where a meeting is held at the Annual Session.

## ARTICLE X

### DUES AND EXPENSE

SECTION 1. The fiscal year of the Association shall be from January 1st to December 31st.

\*By amendment to Chapter VI, Sections 1 and 5 of the By-Laws the retiring President and the Speaker of the House of Delegates were made ex-officio Members of the Board of Trustees.

†As amended in 1936.

SEC. 2. The annual dues shall be \$6.00 for each Member, but no dues shall be paid by Veteran or Honorary Members.

## ARTICLE XI

### REFERENDUM

The General Meeting of the Association may, by a two-thirds vote of the members present and voting, order a general referendum upon any question pending before, or may have been decided by the House of Delegates; and the House of Delegates may, by a similar vote of its own members, or after a like vote of the general meetings, submit any such question to the membership of the Association for a final vote; and if the persons voting shall comprise a majority of all the Members registered at that Annual Session, a majority of such vote shall determine the question and be binding upon the House of Delegates.

## ARTICLE XII

### THE SEAL

The Association shall have a common seal, with a power to break, change or renew the same at pleasure.

## ARTICLE XIII

### AMENDMENTS

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates registered at that Annual Session; provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been sent officially to each component County Society at least two months before the Session at which final action is to be taken.

## BY-LAWS

### CHAPTER I

#### MEMBERSHIP

SECTION 1. All Members, Associate Members, Veteran Members, Honorary Members and invited Guests shall be privileged to attend all scientific meetings, and take part in the discussion of all scientific questions, but Members and Veteran Members only shall be entitled to vote and hold office.

SEC. 2. The name of a physician upon a properly certified roster of Members, or list of Delegates, of a chartered County Society, which has paid its annual assessment, or guest's whose name is on the programme, shall be prima facie evidence of his right to register at the Annual Session.

SEC. 3. No person who is under sentence of suspension or expulsion from any component Society of this Association, or whose name has been dropped from its roll of members shall be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take any part in any of its proceedings until such time as he has been relieved of such disability.

SEC. 4. Each Member in attendance at the Annual Session shall enter his name on the registration book, indicating the component Society of which he is a member. When his right to membership has been verified, by reference to the roster of his Society, he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that session. No Member or Delegate shall take part in any of the proceedings of an Annual Session until he has complied with the provisions of this section.

SEC. 5. There shall be in addition to the general Scientific Assembly:

(1) A Section for specialist on Eye, Ear, Throat and Nose, to be known as the Section of Eye, Ear, Nose and Throat.

(2) A Section for specialist on Railroad and Industrial Surgery, to be known as the Tennessee Association of Railway Surgeons, which sections may hold separate or joint sessions at the place of the Annual Session of the Association. They shall meet on the day of their choice for the discussion of such technical questions, as would not be of general interest to the Scientific Assembly.

(3) The officers of a Section shall be a Chairman, a Vice-Chairman, and a Secretary, each of whom shall be elected annually by a majority vote of the Section.

(4) The date and opening hour of the meeting of the Sections shall be determined before the programme of the General Meeting is published.

## CHAPTER II

### ANNUAL AND SPECIAL SESSIONS OF THE ASSOCIATION

SECTION 1. The Association shall hold an Annual Session on the second Tuesday in April, and at such place as has been fixed at the preceding Annual Session, but it is agreed that the meetings shall rotate annually between Middle, West, and East Tennessee.

SEC. 2. Special sessions of either the Association or House of Delegates shall be called by the President at his discretion, or upon petition of twenty Delegates.

SEC. 3. If for any valid reason, local or otherwise, an Annual Meeting cannot be held on date as named, the President, the three Vice-Presidents, the Secretary and the three Trustees may fix another date, provided the Secretaries of Societies are notified in advance of the changed date by the Secretary of the Association and, if feasible, each Member should be notified by a personal communication mailed to his home address by the latter.

## CHAPTER III

### GENERAL MEETINGS

SECTION 1. The General Meeting shall include all registered Members, Associate Members, Veteran Members, Honorary Members and Guests, all of whom shall have equal rights to participate in the proceedings and discussions; all, except Honorary Members and Guests, may vote on pending questions. Each General Meeting shall be presided over by the President, or, in his absence or disability, or by his request, by one of the Vice-Presidents. Before it, at such time and place as may have been arranged, shall be delivered the Annual Address of the President and the annual orations; and the entire time of the session, so far as possible, shall be devoted to papers and discussions, clinics and demonstrations, relating to scientific medicine.

SEC. 2. The General Meeting shall have authority to create committees or commissions for scientific investigation of special interest and importance to the profession and public, and to receive and dispose of reports of the same, but any expense in

connection therewith must first be concurred in by the House of Delegates.

SEC. 3. Except by special vote, the order of exercises, papers, and discussions as set forth in the official programme, shall be followed from day to day until it has been completed, and all papers omitted may be recalled in regular order.

SEC. 4. No address or paper before the Association, except the addresses of the President and invited guests, shall occupy more than twenty minutes in its delivery; and no Member shall speak longer than five minutes, nor more than once on any subject, provided each essayist be allowed five minutes in which to close the discussion.

SEC. 5. All papers read before the Society shall be its own property. Each paper shall be deposited with the Secretary when read; and if this is not done, it shall not be published; but each essayist may furnish a copy to one or more medical journals for publication, after the paper has been read before the Association and published in the official Journal.

## CHAPTER IV

### HOUSE OF DELEGATES

SECTION 1. The House of Delegates shall meet annually at the time and place of the Annual Session of the Association. It shall meet at two o'clock Tuesday afternoon, and morning and afternoon thereafter until its work is finished, and at such hours as will least interfere with its members attending the Scientific Sessions; but if the business interests of the Association and profession require, it may meet in advance or remain in session after the final adjournment of the General Meeting, the extraordinary meetings being subject to the call of the Speaker.

SEC. 2. Each component County Society shall be entitled to send to the House of Delegates each year one delegate for every fifty members, and one for every fraction thereof; but each County Society holding a charter from this Association, which has made its annual report, and paid its assessments as provided in this Constitution and By-Laws, shall be entitled to one Delegate.



SEC. 3. A majority of the registered Delegates shall constitute a quorum, and all the meetings of the House of Delegates shall be open to Members of the Association.

SEC. 4. From among members of the House of Delegates the Speaker of the House of Delegates for the purpose of expediting proceedings, shall appoint Reference Committees to which reports and resolutions shall be referred. He shall also appoint a Committee on Credentials and such other committees as may be considered by him to be necessary.

SEC. 5. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body, for a period of three years, no two residing in the same grand division of the State. The Association shall pay the expenses of each Delegate representing the Association at the American Medical Association meetings.

SEC. 6. It shall, upon application, provide and issue charters to County Societies organized to conform to the spirit of this Constitution and By-Laws and rescind the charter of any component Society not conforming with the Constitution and By-Laws of the Association, or the ethics of the American Medical Association, when so recommended by the Councilors.

SEC. 7. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into Societies, to be designated by hyphenating the names of two or more counties, so as to distinguish them from district and other classes of Societies; and these Societies, when organized and chartered, shall be entitled to all the privileges and representation provided herein for County Societies, until such Counties may be organized separately.

SEC. 8. It shall have authority to appoint committees for special purposes from its own membership, or from among members of the Association who are not members of the House of Delegates; and such committees may report to the House of Delegates in person, and may participate in the debate thereon.

## CHAPTER V

### ELECTION OF OFFICERS

SECTION 1. All elections shall be by ballot, and the majority of the votes cast shall be necessary to elect.

SEC. 2. On the first day of the Annual Session the Delegates from each of the three grand divisions shall select three Delegates from their respective divisions to serve as a Committee on Nomination, no two of whom shall be from the same County. It shall be the duty of this Committee to consult with other members in selecting candidates for the offices, and to hold one or more meetings, at which the best interests of the Association and of the profession of the State for the ensuing year shall be carefully considered. The Committee shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the names of three Members for the office of President, all in the same grand division of the State from which the President is to be elected, and of one Member for each of the other offices to be filled at that Annual Session, except the Councilors. (For list of officers and terms of election, see Article VIII of the Constitution.)

SEC. 3. The Councilors shall be elected on the second day of the meeting after their report is made to the House of Delegates, so that they may reorganize and plan the year's work. Nominations may be made by the Nominating Committee or by any Delegate.

SEC. 4. The report of the Nominating Committee and the election of Officers shall be the first order of business of the House of Delegates, after the reading of the minutes on the morning of the third day of the General Session, except the Councilors.

SEC. 5. Nothing in this article shall be construed to prevent additional nominations being made by members of the House of Delegates.

SEC. 6. In balloting for the nominees for President, if on the first ballot no one receives a majority of the votes cast, the name receiving the smallest number of votes shall be dropped, and the balloting

shall proceed in this manner until an election is had.

## CHAPTER VI

### DUTIES OF OFFICERS

SECTION 1. The President shall preside at all meetings of the Association, shall appoint all members of Committees not otherwise provided for, shall deliver an Annual Address at such time as may be arranged, shall give a deciding vote in case of a tie, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office, and, as far as practicable, shall visit, by appointment, the various Sections of the State and assist the Councilors in building up the County Societies and in making their work more practical and useful. When installed into office, he shall announce new members of such Committees as have not been elected by the House of Delegates. The retiring President shall be ex-officio a member of the Board of Trustees for one year.

SEC. 2. The Vice-President shall assist the President in the discharge of his duties. In the event of his death, resignation, or removal, the Vice-President to succeed him shall be from the same Grand Division of the State.

SEC. 3. The Treasurer shall give bond for the trust reposed in him, for such amount as the other Trustees may name, said bond to be made by regular bonding company, and paid for by the Association. He shall demand and receive all funds due the Association, together with bequests and donations. All funds shall be deposited in a National Bank. He shall pay money out of the treasury on bills certified to by the Secretary of the Association only; he shall subject his accounts to such examination as the House of Delegates may order; he shall annually render an account of his doings and of the state of the funds in his hands; he shall charge upon his books the assessment against each component County Society at the end of the fiscal year; he shall collect and make proper credits for the same and perform such other duties as may be assigned to him. The compensation of

the Treasurer shall be one hundred dollars (\$100.00) per annum as an honorarium.

SEC. 4. The Secretary of this Association shall devote his whole or part time to the interest of the State Association. He, as Chairman, acting with the Committee on Scientific Work, shall prepare and issue the programs for and attend the Meetings of the Association and the House of Delegates, and shall keep the Minutes, or cause them to be kept, of their respective proceedings. He shall be custodian of all records, books and papers belonging to the Association, except such properly belonging to the Treasurer, the Council, the Sections, and the various Committees, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which come into his hands; he shall provide for the registration of Members and Delegates at the Annual Session; and, upon request, shall transmit a copy of this list to the American Medical Association. In so far as in his power, he shall use the printed matter, correspondence and influence of his office to aid the Counselors in the organization of the County Societies and in the extension of the power and influence of this Association. He shall visit each Counselor District at least once a year, and oftener, if advisable, and assist the Counselors in organizing unorganized counties, and use every means possible to promote the interest of the Association. Should the Secretary and Counselor deem it wise to organize two or more counties into one Society, they shall have the right to take such action and such Societies shall be recognized by the State Association. He shall conduct the official correspondence, notifying Members of meetings, Officers of their election and Committees of their appointment and duties. He will be Editor of the Journal of the Association, unless a special Editor is otherwise provided, and shall discharge such other duties as the Trustees shall direct. His salary shall be . . . . ., determined by the Trustees. The Trustees shall be empowered to select a part or whole-time Assistant Secretary and remove him at pleasure. The Assistant Secretary may or may not have been a

Member of this Association and may or may not be a graduate in medicine.

SEC. 5. The Speaker of the House of Delegates shall preside over that body and perform the usual duties of such officer. He shall sign the Minutes of its transactions when same have been read and approved by the House. In the event of his absence for any cause, the House of Delegates shall elect a Temporary Chairman for such time as it may choose. He shall also be ex-officio member of the Board of Trustees.

SEC. 6. In the absence of the Secretary, the House of Delegates may elect a Temporary Secretary.

SEC. 7. The Trustees shall direct the policy of the Journal and manage the finances of same, as directed by the House of Delegates.

## CHAPTER VII

### COUNCIL

SECTION 1. The Council shall hold meetings during the Annual Session of the Association, and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet after the election of Councilors on the second day of the Annual Session for the reorganization, and for the outlining of work for the ensuing year. At this meeting it shall elect a Chairman and a Secretary, and it shall keep a permanent record of its proceedings. Five Councilors shall constitute a quorum.

SEC. 2. Each Councilor shall be organizer, peacemaker, and censor for his District. He should visit each County in his District at least once a year for the purpose of organizing component Societies where none exist; for inquiring into the condition of the profession, and for improving and increasing the zeal of the County Societies and their members; he shall make an annual report of his doings and of the condition of the profession of each County in his District to each Annual Session of the House of Delegates. The necessary traveling expenses incurred by such Councilor in the line of the duties herein imposed may be allowed by the House of Delegates upon a properly itemized statement, but this

shall not be construed to include his expense in attending the Annual Session of the Association.

SEC. 3. Collectively the Council shall be the Board of Censors of the Association. It shall consider all questions involving the rights and standing of Members, whether in relation to other Members, to component Societies, or to this Association. All questions of an ethical nature brought before the House of Delegates, or the General Meeting, shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of Members, or of a County Society upon which an appeal is taken from the decision of an individual Councilor. Its decision in all such cases shall be final. It shall make such report or recommendations to the House of Delegates as it deems to be the best interest to the Association.

## CHAPTER VIII

### STANDING COMMITTEES

The committees shall be as follows:

A Committee on Scientific Work.

A Committee on Public Policy and Legislation.

A Committee on Nominations.

A Committee on Medical Defense.

A Committee on Cancer.

A Committee on Memoirs.

A Committee on Hospitals.

A Liaison Committee.

A Committee on Education.

An Insurance Committee.

The members of these committees shall be appointed by the Board of Trustees when not otherwise provided by in these by-laws.

Special committees may be appointed from time to time by the President to carry on special activities.

The terms of service of committeemen shall be for a period of from one to three years. The Board of Trustees is instructed to make the appointments for such a period of years that the terms of not more than two members will terminate each year.

The purpose of the House of Delegates is to promote the efficiency of committees by having experienced active members at all times in the service of the Association.

SEC. 2. The Committee on Scientific



Work shall consist of three members, appointed by the Board of Trustees, of which the Secretary shall be a member, and Chairman, and shall determine the character and scope of the scientific proceedings of the Association for each Session, subject to the instructions of the House of Delegates, or of the Association or to the provisions of the Constitution and By-Laws. Thirty days previous to each Annual Session, it shall prepare and issue a programme announcing the order in which papers, discussions, and other business shall be presented, which shall be adhered to by the Association as nearly as practicable.

SEC. 3. The Committee on Public Policy and Legislation shall consist of five members, three to be appointed by the Board of Trustees, and ex-officio the President and Secretary. Under the direction of the House of Delegates, it shall represent the Association in securing and enforcing legislation in the interest of the public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall utilize every organized influence of the profession to promote the general influence in local, State and national affairs and elections. Its work shall be done with the dignity becoming a great profession, and with that wisdom which shall make effective its power and influence. It shall have authority to be heard before the entire Association upon questions of great concern at such times as may be arranged during the Annual Session.

SEC. 4. The Committee on Nominations shall be appointed and perform its duties in accordance with the provisions of Chapter V, Sections 2, 3, and 4, of these By-Laws.

SEC. 5. The Committee on Medical Defense shall consist of three members, one from East, Middle, and West Tennessee, to be elected for three years by the Board of Trustees, so arranged that one is elected each year, but a vacancy shall be filled for the unexpired term by the House of Delegates at any Annual Session. It shall be the duty of this Committee to manage the

defense of malpractice suits against Members of the Association in good standing, who have paid the Defense Fee\* of such an amount as has been named by the House of Delegates, said defense to be covered only for the time for which the fee covered, only alleged malpractice suits shall be defended, and the Association shall not be liable for any judgment against the defendant, but only for reasonable fees of attorneys employed by the Committee, and for usual court costs incident to defense of the case. The Committee shall have authority to make such rules and regulations in the conduct of their work as they deem to the best interest of the Association. The Committee shall keep a careful record of all suits referred to it, and all expenses incurred, and make full report of its work to each Annual Meeting of the House of Delegates. The Committee shall elect one of its members Chairman. All suits shall first be referred to the Chairman of the Committee. All bills incurred and certified to by the Chairman shall be transmitted through the Secretary of the Association and paid by the Treasurer. The Medical Defense Committee shall be furnished by the Treasurer a monthly statement of the financial status of the medical defense fund; or at any other time upon demand.

SEC. 6. The Liaison Committee shall consist of five members, to be appointed by the Board of Trustees of the Association and who shall name (one member) Chairman of the Committee for the period of the appointee's term of office. At least one member shall be from each grand division of the State. One member shall be appointed for a period of five years; one for four years; one for three years; one for two years; and one for one year. Thereafter, one member shall be appointed annually for a period of five years.

It shall be the duty of this committee to confer with the officials of the Department of Health of the State in matters of policy affecting the profession of the State; and it shall be the further duty of this com-

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\*The House of Delegates voted in 1934 to discontinue collecting medical defense fee.

mittee to confer with any member or members of this Association in matters concerning the activities of the Department of Health of the State. Provided, that all matters over which this committee shall have jurisdiction shall be presented to the Committee, through its Chairman, in writing.

It shall be the duty of the Committee to make a detailed annual report to the House of Delegates of its activities; said report being subject to review by the House of Delegates. In the interval between the annual meetings of the House of Delegates, the action of this Committee by a majority vote shall be final.

In the event of a vacancy in the membership of the Committee by any cause, said vacancy shall be filled by appointment by the Board of Trustees, said appointee assuming the position on the Committee for the unexpired term of the member whom he succeeds. The House of Delegates directs the Liaison Committee to act in an advisory manner to the Board of Health as now constituted, in the matter of formation of all policies.

SEC. 7. The Committee on Cancer shall consist of as many members as the Trustees may determine. This Committee shall be appointed by the Board of Trustees and shall make an annual report to the House of Delegates.

SEC. 8. The Committee on Medical Education shall consist of as many members as the Board of Trustees may determine. The Committee shall make a report annually to the House of Delegates.

SEC. 9. The Committee on Memoirs shall consist of five members to be appointed annually by the Board of Trustees, who shall name one member as Chairman, whose duty it shall be to make annual report to the House of Delegates.

SEC. 10. The Committee on Hospitals shall consist of seven members to be appointed by the Board of Trustees of the Association, who shall name one of the number Chairman. This Committee shall make annual report to the House of Delegates.

SEC. 11. The Committee on Insurance

shall consist of three members, one from East, one from Middle, and one from West Tennessee, to be elected by the Trustees of the Association. One member shall be elected for one year, one for two years, and one for three years. Thereafter one member shall be elected annually for a term of three years. Any vacancy shall be filled for any unexpired term that might occur by the Board of Trustees at any annual session.

It shall be the duty of this Committee to attend to all group insurance in which this Association is or may become interested. It shall have power to select insuring companies, accept or reject master policies, arrange premium rates, and act as trustees for this Association in the matter of such group insurance.

All actions of the committee shall be subject to the approval of the Board of Trustees.

The Committee shall elect one of its members Chairman. He shall report to the House of Delegates at each annual session upon the activities of the Committee during the preceding year. All necessary expenses of the Committee in the performance of its duties shall be paid by the Treasury of this Association upon certification of the expenses by the Chairman of the Committee, but this shall not apply to attendance at meetings held at the annual session.

SEC. 12. The Committee on Arrangements shall consist of such a number of the component Society in which the Annual Session is to be held as that Society may determine. It shall, by committees of its own selection, provide suitable accommodations for the meeting places of the Association, its Sections and the House of Delegates, and of their respective Committees, and shall have general charge of all the arrangements. Its Chairman shall report an outline of the arrangements to the Secretary for publication in the programme, and shall make additional announcements during the Session as occasion may require.

## CHAPTER IX

## ASSESSMENTS AND EXPENDITURES

SECTION 1. An assessment of \$6.00 per capita on the active membership of the component Societies is hereby made the annual dues of Members and subscription to the Journal of this Association; provided, the component Society does not include in its Honorary Membership any physician residing within the State, and who is not a member of another County Society; and, provided, it only includes in its Veteran list physicians who are seventy years of age or older, and who have been members of a component Society five preceding years. No assessment is made for Associate, Veteran or Honorary Members, and no Journal is to be furnished them.

SEC. 2. The Secretary of each County Society shall forward a roster of all Officers, a list of Delegates and Members, and a list of non-affiliated physicians of the County, also a list of Members who have died during the year, to the Secretary of this Association, thirty days in advance of the Annual Session.

SEC. 3. The Treasurer of each County Society shall collect and forward to the Secretary of this Association the assessment of \$6.00 per capita for each Member, except Associate, Veteran, or Honorary Members, not later than fifteen days before the opening of each Annual Session.

## CHAPTER X

## RULES OF CONDUCT

The Principles set forth in the Code of Ethics of the American Medical Association shall govern the conduct of Members in their relations to each other and to the public.

## CHAPTER XI

## RULES OF ORDER

The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's "Rules of Order."

## CHAPTER XII

## COUNTY SOCIETIES

SECTION 1. All County Societies now in affiliation with the State Association, or

those that may hereafter be organized in this State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, may, upon application to the House of Delegates, receive a charter from, and become a component part of this Association.

SEC. 2. Charters shall be issued only upon approval of the House of Delegates, and shall be signed by the President and Secretary of this Association. The House of Delegates shall have authority to revoke the charter of any component County Society, whose actions are in conflict with the letter or spirit of this Constitution and By-Laws, or the code of ethics of the American Medical Association, upon recommendation of the Council.

SEC. 3. Each County Society shall judge of the qualifications of its own members; but as such Societies are the only portals to this Association, and to the American Medical Association, every reputable and legally registered physician, who is practicing or who will agree to practice non-sectarian medicine, shall be entitled to membership. Before a charter is issued to any County Society, full and ample notice and opportunity shall be given to every such physician in the County to become a member.

SEC. 4. Only one component Medical Society shall be chartered in any County. When more than one County Society exists, friendly overtures and concessions shall be made, with the aid of the Councilor for the District, if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Council, which shall decide what action shall be taken.

SEC. 5. Any physician who may feel aggrieved by the action of the Society in his County in refusing him membership, or in suspending or expelling him, shall have the right of appeal to the Council.

SEC. 6. In hearing appeals, the Council may admit oral or written evidence, as in its judgment will best and more fairly present the facts, but in the case of every appeal, both as a board and as individual Councilors in District and County work,



efforts at conciliation and compromise should precede all such hearings.

SEC. 7. When a Member in good standing in a component Society moves to another County in the State, his name, upon request, and with the consent of his component Society, shall be transferred, without cost, to the roster of the County Society in whose jurisdiction he moves.

SEC. 8. A physician living on or near a County line may hold his membership in that County most convenient for him to attend, on permission of the Society in whose jurisdiction he resides, and with consent of his Councilor.

SEC. 9. Each County Society shall have general direction of the affairs of the profession in the County, and its influence shall be constantly exerted for bettering the scientific, moral, and material condition of every physician in the County; and systematic effort shall be made by each member, and by the Society as a whole, to increase the membership until it embraces every qualified physician in the County.

SEC. 10. Frequent meetings shall be encouraged, and the most attractive programs arranged that are possible. The younger members shall be especially encouraged to do post-graduate and original research work, and to give the Society the benefit of such labors. Official position and other preferments may be unstintingly given to such members.

SEC. 11. At some meeting in advance of the Annual Session of this Association, each component Society shall elect a Delegate or Delegates to represent it in the House of Delegates of this Association, in the proportion of one Delegate and one alternate to each fifty members or fraction thereof; and the Secretary of the Society shall send a list of such Delegates to the Secretary of this Association at least ten days before the Annual Session.

SEC. 12. The Secretary of each County Society shall keep a roster of its members, and a list of the non-affiliated registered physicians of the County, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other informa-

tion as may be deemed necessary. He shall furnish an official report containing such information, upon blanks supplied him for the purpose to the Secretary of this Association, thirty days in advance of each Annual Session. In keeping such a roster, the Secretary shall note any changes in the personnel of the profession, by death, or by removal to or from the County, and in making his Annual Report, he shall be certain to account for every physician who has lived in the County during the year.

## CHAPTER XIII

### AMENDMENTS

These By-Laws may be amended at any Annual Session by a majority vote of all the Delegates present at that Session, after the amendment has been made in writing, and has been laid upon the table for one day.

## PRINCIPLES OF MEDICAL ETHICS

### CHAPTER I.—IN GENERAL

#### *The Physician's Responsibility*

Section 1. A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals.

#### *Groups and Clinics*

Sec. 2. The ethical principles actuating and governing a group or clinic are exactly the same as those applicable to the individual. As a group or clinic is composed of individual doctors, each of whom, whether employer, employee or partner, is subject to the principles of ethics herein elaborated, the uniting into a business or professional organization does not relieve them either individually or as a group from the obligation they assume when entering the profession.

### CHAPTER II.—THE DUTIES OF PHYSICIANS TO THEIR PATIENTS

#### *Patience, Delicacy, and Secrecy*

Section 1. Patience and delicacy should characterize all the acts of a physician. The confidences concerning individual or do-

mestic life entrusted by a patient to a physician and the defects of disposition or flaws of character observed in patients during medical attendance should be held as a trust and should never be revealed except when imperatively required by the laws of the state. There are occasions, however, when a physician must determine whether or not his duty to society requires him to take definite action to protect a healthy individual from becoming infected, because the physician has knowledge, obtained through the confidences entrusted to him as a physician, of a communicable disease to which the healthy individual is about to be exposed. In such a case, the physician should act as he would desire another to act toward one of his own family under like circumstances. Before he determines his course, the physician should know the civil law of his commonwealth concerning privileged communications.

#### *Prognosis*

Sec. 2. A physician should give timely notice of dangerous manifestations of the disease to the friends of the patient. He should neither exaggerate nor minimize the gravity of the patient's condition. He should assure himself that the patient or his friends have such knowledge of the patient's condition as will serve the best interests of the patient and the family.

#### *Patients Must Not Be Neglected*

Sec. 3. A physician is free to choose whom he will serve. He should, however, always respond to any request for his assistance in an emergency or whenever temperate public opinion expects the service. Once having undertaken a case, a physician should not abandon or neglect the patient because the disease is deemed incurable; nor should he withdraw from the case for any reason until a sufficient notice of a desire to be released has been given the patient or his friends to make it possible for them to secure another medical attendant.

### CHAPTER III.—THE DUTIES OF PHYSICIANS TO EACH OTHER AND TO THE PROFESSION AT LARGE

#### *Article I.—Duties to the Profession Uphold Honor of Profession*

Section 1. The obligation assumed on

entering the profession requires the physician to comport himself as a gentleman and demands that he use every honorable means to uphold the dignity and honor of his vocation, to exalt its standards and to extend its sphere of usefulness. A physician should not base his practice on an exclusive dogma or sectarian system, for "sects are implacable despots; to accept their thralldom is to take away all liberty from one's action and thought." (Nicon, father of Galen.)

#### *Medical Societies*

Sec. 2. In order that the dignity and honor of the medical profession may be upheld, its standards exalted, its sphere of usefulness extended, and the advancement of medical science promoted, a physician should associate himself with medical societies and contribute his time, energy, and means in order that these societies may represent the ideals of the profession.

#### *Deportment*

Sec. 3. A physician should be "an upright man, instructed in the art of healing." Consequently, he must keep himself pure in character and conform to a high standard of morals, and must be diligent and conscientious in his studies. "He should also be modest, sober, patient, prompt to do his whole duty without anxiety; pious without going so far as superstition, conducting himself with propriety in his profession and in all the actions of his life." (Hippocrates.)

#### *Advertising*

Sec. 4. Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communications, is unprofessional. This does not prohibit ethical institutions from a legitimate advertisement of location, physical surroundings and special class—if any—of patients accommodated. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisements, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is con-

cerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not *per se* improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any methods to gain the attention of the public for the purpose of obtaining patients.

#### *Patents and Perquisites*

Sec. 5. It is unprofessional to receive remuneration from patents for surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances, or perquisites from attendants who aid in the care of patients.

#### *Medical Laws—Secret Remedies*

Sec. 6. It is unprofessional for a physician to assist unqualified persons to evade legal restrictions governing the practice of medicine; it is equally unethical to prescribe or dispense secret medicines or other secret remedial agents, or manufacture or promote their use in any way.

#### *Safeguarding the Profession*

Sec. 7. Physicians should expose without fear or favor, before the proper medical or legal tribunals, corrupt or dishonest conduct of members of the profession. All questions affecting the professional reputation or standing of a member or members of the medical profession should be considered only before proper medical tribunals in executive sessions or by special or duly appointed committees on ethical relations. Every physician should aid in safeguarding

the profession against the admission to its ranks of those who are unfit or unqualified because deficient either in moral character or education.

### *Article II.—Professional Services of Physicians to Each Other*

#### *Physicians Dependent on Each Other*

Section 1. Experience teaches that it is unwise for a physician to treat members of his own family or himself. Consequently, a physician should always cheerfully and gratuitously respond with his professional services to the call of any physician practicing in his vicinity, or of the immediate family dependents of physicians.

#### *Compensation for Expenses*

Sec. 2. When a physician from a distance is called on to advise another physician or one of his family dependents, and the physician to whom the service is rendered is in easy financial circumstances, a compensation that will at least meet the traveling expenses of the visiting physician should be proffered. When such a service requires an absence from the accustomed field of professional work of the visitor that might reasonably be expected to entail a pecuniary loss, such loss should, in part at least, be provided for in the compensation offered.

#### *One Physician to Take Charge*

Sec. 3. When a physician or a member of his dependent family is seriously ill, he or his family should select a physician from among his neighboring colleagues to take charge of the case. Other physicians may be associated in the care of the patient as consultants.

### *Article III.—Duties of Physician in Consultations*

#### *Consultations Should Be Encouraged*

Section 1. In serious illness, especially in doubtful or difficult conditions, the physician should request consultations.

#### *Consultation for Patient's Benefit*

Sec. 2. In every consultation, the benefit to be derived by the patient is of first importance. All the physicians interested in the case should be frank and candid with the patient and his family. There never is



occasion for insincerity, rivalry or envy and these should never be permitted between consultants.

#### *Punctuality*

Sec. 3. It is the duty of a physician, particularly in the instance of a consultation, to be punctual in attendance. When, however, the consultant or the physician in charge is unavoidably delayed, the one who first arrives should wait for the other for a reasonable time, after which the consultation should be considered postponed. When the consultant has come from a distance, or when for any reason it will be difficult to meet the physician in charge at another time, or if the case is urgent, or if it be the desire of the patient, he may examine the patient and mail his written opinion, or see that it is delivered under seal, to the physician in charge. Under these conditions, the consultant's conduct must be especially tactful; he must remember that he is framing an opinion without the aid of the physician who has observed the course of the disease.

#### *Patient Referred to Specialist*

Sec. 4. When a patient is sent to one specially skilled in the care of the condition from which he is thought to be suffering, and for any reason it is impracticable for the physician in charge of the case to accompany the patient, the physician in charge should send to the consultant by mail, or in the care of the patient under seal, a history of the case, together with the physician's opinion and an outline of the treatment, or so much of this as may possibly be of service to the consultant; and as soon as possible after the case has been seen and studied, the consultant should address the physician in charge and advise him of the results of the consultant's investigation of the case. Both these opinions are confidential and must be so regarded by the consultant and by the physician in charge.

#### *Discussions in Consultation*

Sec. 5. After the physicians called in consultation have completed their investigations of the case, they should meet by themselves to discuss conditions and deter-

mine the course to be followed in the treatment of the patient. No statement or discussion of the case should take place before the patient or friends, except in the presence of all the physicians attending, or by their common consent; and no opinions or prognostications should be delivered as a result of the deliberations of the consultants, which have not been concurred in by the consultants at their conference.

#### *Attending Physician Responsible*

Sec. 6. The physician in attendance is in charge of the case and is responsible for the treatment of the patient. Consequently, he may prescribe for the patient at any time and is privileged to vary the mode of treatment outlined and agreed on at a consultation whenever, in his opinion, such a change is warranted. However, at the next consultation, he should state his reasons for departing from the course decided on at the previous conference. When an emergency occurs during the absence of the attending physician, a consultant may provide for the emergency and the subsequent care of the patient until the arrival of the physician in charge, but should do no more than this without the consent of the physician in charge.

#### *Conflict of Opinion*

Sec. 7. Should the attending physician and the consultant find it impossible to agree in their view of a case another consultant should be called to the conference or the first consultant should withdraw. However, since the consultant was employed by the patient in order that his opinion might be obtained, he should be permitted to state the result of his study of the case to the patient, or his next friend in the presence of the physician in charge.

#### *Consultant and Attendant*

Sec. 8. When a physician has attended a case as a consultant, he should not become the attendant of the patient during that illness except with the consent of the physician who was in charge at the time of the consultation.

*Article IV.—Duties of Physicians in Cases of Interference*

*Criticism to Be Avoided*

Section 1. The physician, in his intercourse with a patient under the care of another physician, should observe the strictest caution and reserve; should give no disingenuous hints relative to the nature and treatment of the patient's disorder; nor should the course of conduct of the physician, directly or indirectly, tend to diminish the trust reposed in the attending physician. In embarrassing situations, or wherever there may seem to be a possibility of misunderstanding with a colleague, the physician should always seek a personal interview with his fellow.

*Social Calls on Patient of Another Physician*

Sec. 2. A physician should avoid making social calls on those who are under the professional care of other physicians without the knowledge and consent of the attendant. Should such a friendly visit be made, there should be no inquiry relative to the nature of the disease or comment upon the treatment of the case, but the conversation should be on subjects other than the physical condition of the patient.

*Services to Patient of Another Physician*

Sec. 3. A physician should never take charge of or prescribe for a patient who is under the care of another physician, except in an emergency, until after the other physician has relinquished the case or has been properly dismissed.

*Criticism to Be Avoided*

Sec. 4. When a physician does succeed another physician in the charge of a case, he should not make comments on or insinuations regarding the practice of the one who preceded him. Such comments or insinuations tend to lower the esteem of the patient for the medical profession and so react against the critic.

*Emergency Cases*

Sec. 5. When a physician is called in an emergency and finds that he has been sent

for because the family attendant is not at hand, or when a physician is asked to see another physician's patient because of an aggravation of the disease, he should provide only for the patient's immediate need and should withdraw from the case on the arrival of the family physician after he has reported the condition found and the treatment administered.

*When Several Physicians Are Summoned*

Sec. 6. When several physicians have been summoned in a case of sudden illness or of accident, the first to arrive should be considered the physician in charge. However, as soon as the exigencies of the case permit, or on the arrival of the acknowledged family attendant or the physician the patient desires to serve him, the first physician should withdraw in favor of the chosen attendant; should the patient or his family wish some one other than the physician known to be the family physician to take charge of the case the patient should advise the family physician of his desire. When, because of sudden illness or accident, a patient is taken to a hospital the patient should be returned to the care of his known family physician as soon as the condition of the patient and the circumstances of the case warrant this transfer.

*A Colleague's Patient*

Sec. 7. When a physician is requested by a colleague to care for a patient during his temporary absence, or when, because of an emergency, he is asked to see a patient of a colleague, the physician should treat the patient in the same manner and with the same delicacy as he would have one of his own patients cared for under similar circumstances. The patient should be returned to the care of the attending physician as soon as possible.

*Relinquishing Patient to Regular Attendant*

Sec. 8. When a physician is called to the patient of another physician during the enforced absence of that physician, the patient should be relinquished on the return of the latter.

*Substituting in Obstetric Work*

Sec. 9. When a physician attends a

woman in labor in the absence of another who has been engaged to attend, such physician should resign the patient to the one first engaged, upon his arrival; the physician is entitled to compensation for the professional services he may have rendered.

*Article V.—Differences Between Physicians  
Arbitration*

Section 1. Whenever there arises between physicians a grave difference of opinion which cannot be promptly adjusted, the dispute should be referred for arbitration to a committee of impartial physicians, preferably the Board of Censors of a component county society of the American Medical Association.

*Article VI.—Compensation  
Limits of Gratuitous Service*

Section 1. The poverty of a patient and the mutual professional obligation of physicians should command the gratuitous services of a physician. But endowed institutions and organizations for mutual benefit, or for accident, sickness and life insurance, or for analogous purposes, have no claim upon physicians for unremunerated services.

*Contract Practice*

Sec. 2. It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians of a community. To do this is detrimental to the public and to the individual physician, and lowers the dignity of the profession.

"By the term 'contract practice' as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization or individual, to furnish partial or full medical services to a group or class of individuals for a definite sum or a fixed rate per capita.

"Contract practice per se is not unethical. However, certain features or conditions if present make a contract unethical, among which are: (1) When there is solicitation of patients, directly or indirectly. (2)

When there is underbidding to secure the contract. (3) When the compensation is inadequate to assure good medical service. (4) When there is interference with reasonable competition in a community. (5) When free choice of a physician is prevented. (6) When the conditions of employment make it impossible to render adequate service to the patients. (7) When the contract because of any of its provisions or practical results is contrary to sound public policy.

"Each contract should be considered on its own merits and in the light of surrounding conditions. Judgment should not be obscured by immediate, temporary or local results. The decision as to its ethical or unethical nature must be based on the ultimate effect for good or ill on the people as a whole."

*Commissions*

Sec. 3. When a patient is referred by one physician to another for consultation or for treatment, whether the physician in charge accompanies the patient or not, it is unethical to give or to receive a commission by whatever term it may be called or under any guise or pretext whatsoever.

*Direct Profit to Lay Groups*

Sec. 4. It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy.

CHAPTER IV.—THE DUTIES OF THE  
PROFESSION TO THE PUBLIC

*Physicians as Citizens*

Section 1. Physicians, as good citizens and because their professional training specially qualifies them to render this service, should give advice concerning the public



health of the community. They should bear their full part in enforcing its laws and sustaining the institutions that advance the interests of humanity. They should cooperate especially with the proper authorities in the administration of sanitary laws and regulations. They should be ready to counsel the public on subjects relating to sanitary police, public hygiene, and legal medicine.

#### *Public Health*

Sec. 2. Physicians, especially those engaged in public health work, should enlighten the public regarding quarantine regulations; on the location, arrangement and dietaries of hospitals, asylums, schools, prisons, and similar institutions; and concerning measures for the prevention of epidemic and contagious diseases. When an epidemic prevails, a physician must continue his labors for the alleviation of suffering people, without regard to the risk to his own health or life or to financial return. At all times, it is the duty of the physician to notify the properly constituted public health authorities of every case of communicable disease under his care, in accordance with the laws, rules and regulations of the health authorities of the locality in which the patient is.

#### *Public Warned*

Sec. 3. Physicians should warn the public against the devices practiced and the false pretensions made by charlatans which may cause injury to health and loss of life.

#### *Pharmacists*

Sec. 4. By legitimate patronage, physicians should recognize and promote the profession of pharmacy; but any pharmacist, unless he be qualified as a physician, who assumes to prescribe for the sick, should be denied such countenance and support. Moreover, whenever a druggist or pharmacist dispenses deteriorated or adulterated drugs, or substitutes one remedy for another designated in a prescription, he thereby forfeits all claims to the favorable consideration of the public and physicians.

#### *Conclusion*

While the foregoing statements express in a general way the duty of the physician to his patients, to other members of the profession and to the profession at large, as well as of the profession to the public, it is not to be supposed that they cover the whole field of medical ethics, or that the physician is not under many duties and obligations besides these herein set forth. In a word, it is incumbent on the physician that under all conditions, his bearing toward patients, the public and fellow practitioners should be characterized by a gentlemanly deportment and that he constantly should behave toward others as he desires them to deal with him. Finally, these principles are primarily for the good of the public and their enforcement should be conducted in such a manner as shall deserve and receive the endorsement of the community.

# THE JOURNAL

OF THE

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H. H. SHOULDERS, M.D., Editor and Secretary

JANUARY, 1937

## EDITORIAL

### COMPULSORY HEALTH INSURANCE AND DISEASE CONTROL

The subject of health insurance is still being agitated. It is, therefore, necessary for the profession to keep informed, and by all means is it necessary that the public be kept informed.

One of the best statements on the subject we have read in recent months was prepared by Dr. Frederick L. Hoffman and published in *The Weekly Underwriter*, New York City, under the above heading.

The Public Relations Bureau of the Medical Society of the State of New York, 2 East 103d Street, New York City, has reproduced the article in pamphlet form. Copies may be had at ten cents each.

This is the first of a series of four articles by Dr. Hoffman on this subject. It is reproduced in the JOURNAL by the kind permission of the Public Relations Bureau of the Medical Society of the State of New York and Dr. Hoffman's office.

The author is especially well fitted to write on this subject. In the first place, he is thoroughly unbiased. In the second place, he is one of the great statisticians in this country. In the third place, he has taken the steps necessary to inform himself thoroughly.

It is our opinion that wide publicity should be given these authoritative statements. The article in full follows:

"For the social security program of the

present administration, including its larger aspects of compulsory health insurance of American wage-workers and low-salaried wage earners, European precedents are relied upon for guidance, particularly the system in vogue in England and Wales and Scotland. The proposal rests upon the theory that vast benefits will result from such a system, for which compulsory contributions will be collected on a stated scale and dispensed by local bodies throughout the country. This would involve the establishment of a vast bureaucratic machine, the magnitude of which would be considerable. Contributions are to be collected by deductions from the current wage, to which a stated proportion of federal and state aid will be given by way of supplementary assistance. It is claimed that under such a system the mass of wage-earning population would receive decidedly better medical attention than at present is the case."

### Death Rate Ultimate Test

"In practice, however, it has been found that the bureaucratic system established under such a method involves countless complications which hinder rather than help the progress of scientific medicine for the benefit of the people. The medical profession would be divided into two classes, or those practicing state insurance and those who continue under a system of free competition in private practice. It is obviously a question of evidence as to which system is preferable for the benefit of the people.

Hence for the present purpose analyses of comparative death rates are presented for England and Wales and Scotland on the one hand and the United States on the other, for the year 1934, since the death rate is the ultimate test of skill and attention in medical practice. In what follows only official reports of the mortality of the different countries have been used.

The first two articles compare the mortality of England and Wales and the United States, the third compares Scotland and the United States, and the fourth summarizes certain general evidence derived from current medical publications."

*Regimentation*

"The proposed system of compulsory health insurance is fundamentally opposed to our American conceptions of life and democracy with each and every one free to develop traits of competence and protect his own interests in sickness and health. The paternalistic system of Europe is un-American and opposed to the best interests of the population. The system would lead to the regimentation of the medical profession, lower the standards of medical practice, impose heavy burdens on the family budget, and produce results less satisfactory than the present system. The colossal sums that would be collected in the way of contributions would unquestionably be made the football of politics, and any doctor in the system would be compelled to concern himself, more or less, with political questions affecting his interests rather than follow his professional bent in the development of the science of medicine and make the interests of his patients his sole concern."

"Advocates of the system are chiefly social service workers whose philosophy of government is fundamentally opposed to that which has prevailed in the past and aims to bring about lay control of medical practice regardless of all pretenses to the contrary. Just as Great Britain modeled its system of compulsory health insurance after German methods of social control, it is now proposed to model an American system after the British. Once such a system is established, it is next to impossible to repeal it or bring about profound modifications. It becomes a part of the everyday life of the people who thus enter into bondage to the state in a manner involving the highest considerations of public welfare and social progress. What follows is based on many years of impartial study of the situation in England and on the continent of Europe where compulsory health insurance has been in vogue for many years."

"In the event that an American system becomes established, it would unquestionably follow British precedent rather than German, Austrian, or French, which are less applicable to our situation."

## ENGLAND AND WALES

"The claims made for compulsory health insurance as to the value of medical benefits to the insured population have never been adequately supported by an appeal to national vital statistics showing a decided fall in the mortality in those diseases which would seem to be subject to human control. On the assumption that compulsory health insurance is of the benefit claimed for it in the case of huge masses of insured wage earners, the national death rates for specific causes should make a much more favorable showing than the corresponding death rates in countries not operating such a system of *wageworkers' insurance*."

"To illustrate this important assumption, it seems perfectly admissible to take the national figures for England and Wales and the United States as an example, and the comparative data following rest upon this theory, which provides the only test available, since national figures for nonfatal illnesses are not available. Since the latest official figures are for 1934, that year has been selected for the present purpose."

"As a rule, only the diseases of adult life are considered, and by preference only such as admit of the largest measure of social control by the application of prompt remedial or curable measures either under a system of health insurance or by unrestricted medical practice as it prevails in this country. Since comparison of all the two hundred scheduled causes of death would involve many diseases of small importance, I have selected such as seem most suitable for the purpose in the light of long experience with health-promoting agencies."

"It may not be out of place to point out in this connection that all of the great modern health-promoting organizations, such as the National Tuberculosis Association, the American Heart Association, and other organizations having to do with cancer, malaria, asthma, diabetes and mental hygiene, as well as the great National Safety Council for the prevention of accidents, had their origin in this country under the individual practice of medicine, while their beneficent mission has spread from here to all the great nations of the earth, includ-



ing those in which health insurance is in operation."

### *Comparative Vital Statistics*

"Now to examine comparative vital statistics for various diseases for the year 1934."

"Erysipelas prevailed in England and Wales at the rate of 3.6 per 100,000, while in this country the rate was 1.5. This is a highly infectious disease and requires prompt medical treatment for efficient control and reduction in spread. In England and Wales the mortality has increased from 2.6 in 1930 to 3.6 in 1934, while in the United States the rate has decreased from 2.1 to 1.5."

"Respiratory tuberculosis prevailed in England and Wales in 1934 at a rate of 63.5 per 100,000. The corresponding rate for this country was 51.2. There was a decrease in the rate in England and Wales from 73.9 in 1930 to 63.5 in 1934, and in this country from 63.4 to 51.2. Disseminated tuberculosis prevailed in England and Wales to the extent of 2.8 per 100,000 compared with a rate of 1.0 in this country. There has been a decrease in the rate in England and Wales from 3.9 in 1930 to 2.8 in 1934, and in this country from 1.4 to 1.0."

"Purulent infection, or septicemia, prevailed in England and Wales at a rate of 2.0 per 100,000 in 1934 and 0.7 in this country. The decline in the rate in the two countries during the last five years has been about the same."

"The cancer death rate in England and Wales was 156.3 per 100,000. For this country the rate was 106.3, a very marked difference. Cancer of the male genitourinary organs prevailed at a rate of 17.7 in England and Wales and 9.0 in this country. This group includes the so-called mule spinner's cancer which prevails in England and Wales, but not in this country. The mortality from cancer of the skin is about the same in the two countries, or 2.7 and 2.6, respectively."

"The rate for rheumatic fever was 3.4 in England and Wales and 1.8, or about one-half, for this country. The English death

rate has declined from 3.8 in 1931 to 3.4, while in this country the decrease has been from 2.5 to 1.8. This is a disease which requires careful medical supervision of the patient and prompt attention to his needs. The same is true of chronic rheumatism and osteoarthritis, which prevailed in England and Wales at a rate of 7.8 compared with a rate of 1.3 for this country. The reasons for this marked difference are not fully understood, but they are possibly partly climatic. Instead of a reduction in the rate there has been an increase in England and Wales from 7.5 in 1930 to 7.8 in 1934, while in this country the rate remained stationary."

"Anemia-chlorosis showed a death rate of 6.6 for England and Wales and 3.1 for this country, or less than one-half. The rate increased in England during the last five years from 6.0 to 6.6, while in this country there was a decrease in the rate from 3.7 to 3.1."

"Cerebral hemorrhage, apoplexy, etc., was much more common in the United States, the rate having been 85.5 in 1934 compared with a rate of 64.7 for England and Wales. The rate decreased in England and Wales from 65.0 to 64.7, and in this country from 88.8 to 85.5."

"Other diseases of the nervous system show a decidedly higher rate for England and Wales, or 7.3 per 100,000 in 1934, compared with a rate of 3.1 for the United States. The reduction in the rate has been about the same for both countries."

"Disease of the ear and mastoid sinus, the medical neglect of which is of serious consequence, prevailed in England and Wales at the rate of 4.1 in 1934 compared with 3.2 in this country. The rate has increased in England and Wales from 3.5 to 4.1, while the rate for this country declined slightly or from 3.3 in 1930 to 3.2 in 1934."

"Acute endocarditis prevailed in England and Wales to the extent of 3.0 per 100,000 in 1934 and in this country at a rate of 2.8. Chronic endocarditis and valvular disease prevailed at a rate of 58.1 in England and Wales and 45.7 in this country. There was a reduction in the rate in Eng-

land and Wales from 65.7 to 58.1, and in the United States from 56.1 to 45.7."

"Diseases of myocardium are much more common in England and Wales than in this country, the rate having been 163.2 per 100,000 in 1934 in England against a rate of 108.1 for this country. There has been an increase in the rate in both countries, or from 120.9 to 163.2 in England and from 97.7 to 108.1 in the United States."

"The rate for diseases of the coronary arteries and angina pectoris was 26.4 per 100,000 in 1934 in England and Wales and 42.8 in this country. The rate increased from 14.8 to 26.4 in England and from 24.1 to 42.8 in this country. The increase may possibly be the result of changes in classification for medical registration purposes."

"For disordered action of the heart the rate in England and Wales in 1934 was 6.7 compared with a rate of 0.7 for this country. There was an increase in the rate from 5.3 in 1930 to 6.7 in 1934 in England and Wales and from 0.6 to 0.7 in this country."

"Arteriosclerosis likewise shows a decidedly higher figure for England and Wales, or 54.4 in 1934, compared with 18.0 for this country. While the rate increased in England and Wales during the last five years from 47.5 to 54.4, it decreased in the United States from 18.4 to 18.0."

#### *Higher Death Rates in England*

"In the diseases thus far reviewed, it is therefore shown that with only two exceptions the rate was higher in England. The rate of mortality decrease is greater in this country than in England, and it may be recalled that the original act starting health insurance stated that it was "an act to provide for insurance against total loss of health and the prevention and cure of sickness, and for purposes incidental thereto."

"As regards the prevention of sickness it is shown that, of the diseases enumerated, most come under health insurance practice as a matter of routine experience, with much more favorable results shown for this country than for England and Wales."

"There is no better test than the comparative mortality figures of these two countries to illustrate the contrast between

panel practice on the one hand and private medical practice on the other. The test is absolutely fair and reveals the superiority of health conditions in this country for a large majority of the wage-earning element, a large proportion of which receives medical treatment free of charge. To impose a system of health insurance upon our wage earners would merely diminish their income and reduce their surplus which otherwise would go toward maintaining the American standard of life."

"In subsequent articles I shall review other causes of death, particularly of the respiratory type and the digestive type in which climatic factors to a certain extent unquestionably play a part."

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#### THE CONSTITUTION AND BY-LAWS

The constitution and by-laws of the state association as amended to date are being reproduced in this issue of the JOURNAL.

By a provision in Chapter X of the by-laws of the association the principles in the code of medical ethics of the American Medical Association are a part of the rules which shall govern the conduct of members.

It is our firm conviction that if every doctor would read the principles in the code of medical ethics and re-read it, until its provisions are thoroughly familiar to him, the whole of medical practice would be elevated. It is our belief that most of the violations that occur are the result of ignorance.

We believe that the reader will derive genuine pleasure from reading and re-reading the principles in the code of ethics. It is so noble in its conception. It portrays such a deep insight into the dominant traits of human character. Its provisions are so clear and well expressed.

It is suggested that each member make at least one new year's resolution—to read the code once a month.

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#### THE RELATIONS BETWEEN THE MEDICAL PROFESSION AND THE PUBLIC

The leaders in organized medicine are thoroughly aware of the fact that the relations between the organized profession of

medicine and the public are not what they should be.

It should be stated that each person has a doctor whom he or she holds in high esteem, but in their thinking he is held up as a person separate and apart from the organized profession.

We are perfectly aware also that much propaganda in the past few years has been designed for the purpose of creating the situation that exists.

We are perfectly aware that if the public knew the facts as regards the attitude of the organized profession toward the whole problem of medical service this situation would not exist.

The organized medical profession has not created publicity departments and placed them in charge of high-powered propagandists for the purpose of influencing public opinion. The medical profession has rather taken for granted that the public appreciates the high purposes which motivate their activities.

It may be that the medical profession has been in error in such an attitude. Certainly the social service worker on a good salary is rather well trained in the art of publicity, and such publicity involves him in no personal sacrifice whatever. He has all to gain and nothing to lose.

An example of the publicity referred to is in substance as follows: A certain social service agency will furnish the lay press with publicity to the effect that the agency was created in a certain year—say 1910. Since that time the infant mortality in the territory served by the agency has been reduced sixty or seventy per cent.

While the agency does not claim the full credit for such an accomplishment, it leaves the layman no other conclusion. A layman reads the article and, of course, does not think of all the energies that have been exerted by the medical profession to accomplish the very ends that are portrayed. Such propaganda is having the very definite effect of creating the impression that the agencies are accomplishing things while organized medicine stands still.

The lay person who draws the false conclusion may not be blamable. He has not

the time nor the facility with which to acquaint himself with the facts of what the figures in mortality may be attributed to.

Several state societies have created a public relations committee. The Medical Society of the State of New York has created a committee on medical trends, and the following article came to us in the form of a reprint from this committee. We believe it to be thoroughly worth reading by the membership.

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#### WHITHER MEDICINE?\*

TERRY M. TOWNSEND, M.D., F.A.C.S., *New York City*  
*Chairman, Committee on Medical Trends,*  
*Medical Society of the State of New York*

Medicine is not dependent neither is it independent. Medicine is interdependent with the public. Without the public, there would be no medicine; without medicine, there would be no public.

With a clear understanding of these premises, it is about time that each side stop throwing brickbats at the other. There has never been a full and complete understanding between medicine and the public. The medical man has been so engaged in dealing with the raw stuff of life in all its ungente profusion that he does not exercise his leadership on the masses in a practical manner. On the other hand, the public has always regarded the physician as one who is content to travel the even tenor of his way, to fraternize with his like, and avoid contacts that are not the obvious ones between physician and patient and not involving him in community responsibility. The physician by instinct, training, and occupation is individually self-reliant, solving each problem as it comes along as an original problem, yet not in an original way. Our habits of thought and action require us to solve these problems by reference to principles, with the insight given by the experience of ourself and others. Within these self-imposed limitations, we are truly free spirits.

We are free because we are disciplined as are no other group of men. The world

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\*Read before the Tompkins County Medical Society, Ithaca, November 19, 1936.



has yet to learn through bitter experience that the man, group, or mob who have freedom without discipline will have discipline imposed upon them from without. It is the human inclination to accept the downhill path.

The query "Whither medicine?" implies "Whence medicine?" for "I have but one lamp by which my feet are guided, and that is the lamp of experience. I know no way of judging the future but by the past."

Whence came medicine? From a prehistoric area. As far back as 4,000 or 5,000 B.C., we have definite knowledge that medicine was practiced in a very practical manner, in conjunction with a liberal mixture of religion and superstition. Even Aesculapian medicine was dedicated to the gods, and his daughters Hygeia and Panacea played prominent parts in the faith. It was Hippocrates who discarded mythological gods and taught mere humans to observe disease, learn its manifestations, and apply logical relief. For three hundred years until the death of Galen and his followers, medicine flourished as an art and science. Then came the decline and fall of the great Roman and Grecian civilization and culture: medicine also fell and near died. It required fourteen centuries for medicine to revive and progress. As the social, political, and economic tides ran low, so did medicine.

Five centuries is but a tiny period of the world's time, and it may be reasonably accepted that our present culture will not be immediately wiped out. Nevertheless, when, as, and if this decline and fall comes, medicine will fall, but not so low as it did in the fourteen centuries after Galen. If medicine obtains and retains strong leadership, much can be done to prevent its complete abasement, and even under the severest blows which culture may sustain, medicine can still hold its prestige.

But medicine, as has been stated, is interdependent with the public. And the public has chosen to take a superficial course in medicine without, at all times, the wisest leadership. Not always, but too often, "health education" has operated as a mere inducement to self-diagnosis. In other re-

spects, of which we are aware, the public has been given erroneous information in the ostensible effort to "educate" them. This is because we have been content to be leaders as individuals of individuals, and have not exercised leadership as a group of other groups. Never have we denied advice or assistance, but have always given it when requested. But we have waited to be requested. Our attitude has been that which Shakespeare describes in the lines—"My name's Sir Oracle and when I open my lips, let no dog bark." History relates that the utterances of the oracles were obscure and enigmatical and in the end the oracles fell into disuse, and the priests who lived in the caves were at last without employment because people ceased to come to them. A new priest appeared, who went out among men teaching them. Mankind followed the new leader who lived among them, partook of their customs, habits, joys, and troubles, and answered their questions before they were asked.

Whither medicine? Where are we going? Why are we going? How are we going? The first three queries I lay in the laps of the bright intellects of medicine. On the last question I submit a few thoughts.

Once there was a large crowd of boys going up a hill. One boy, far behind, was running fast. A bystander asked him: "What's the matter? Why do you have to run so fast?" The boy replied, "I must catch up with the crowd. I am their leader."

It is this type of leadership from which medicine has been and is suffering. Is it not the height of folly to issue edicts to the medical profession assuring them that they are the last court of resort; that their opinion on the interdependence between medicine and the public is final; that their oracular utterances are enduring and eternal? Do not these leaders correspond to the little boy in the rear of the procession?

Rather let us acquire new technics: those of groups dealing with groups. In the process of becoming better known, in coming out of our caves, so to speak, we have need to proceed with care, lest we stumble,

for we are treading new ground. We must see that nothing is lost that is still of value in the old tradition, and that the new method does not corrupt the values of the old. To be vocal we must have spokesmen, and they must be the right spokesmen. They must say that which is truly interpretative of us. This done, we have nothing to fear from the term "publicity," anathema as this is and should be, when used for personal aggrandizement.

Many questions have arisen. Perhaps the greatest one has been: "Can this thing be done without loss of prestige and dignity on the part of the profession?" This question, I believe, has been answered in the affirmative. In fact, it has been demonstrated in New York State, at least, that it can be done to the enhancement of the prestige and dignity of the profession. Certainly we are becoming better known and better understood. We have not lost anything by that, but gained a great deal. The oracle sacrificed everything by remaining in his cave; he became a suspect because he hid himself and surrounded his function with mystery. People needed leaders they could see, who came and walked with them.

Mistakes have been made in medical economics since the history of medicine has been recorded. They will continue to be made, but reiteration of mistakes is stupid and destroying. Leaders in medical economic thought must have uncompromising vision; fortitude to face the harshest facts; and ability to guide through unknown regions.

But a short time ago our government destroyed many magnificent battleships, because we believed in the word and integrity of other nations. Now, we must replace this navy with another. This mistake cannot be rectified. Each year we accept many graduates in medicine from European universities and license them to practice in the State of New York. Will these nations and these universities reciprocate? Such mistakes are matters of civics. Therefore, medical leaders have civic duties. Each year 7,500 physicians are graduated into the practice of medicine and only 2,500 die. This is a mistake of medical education.

Therefore medical leaders have a duty in guiding medical education.

For many years we have had a slogan "militant medicine." This sounds well and always obtains applause. It is similar to the Fourth of July orator whose peroration consists of waving the American flag and praising the constitution. Militant medicine means leadership of the public. It means improvement of our public relations. It means creation of leadership available to other groups than our own.

Too often we have found ourselves leading, yes—but the outside group we thought we were leading was sometimes going the other way! For we have been in our cave as to these concerns strictly outside the practice of our art, while others walked and talked with men.

Is not this indeed the "militant medicine" of which we have been hearing so much? Not militant in sham battles, straw men at grips with straw men, but real antagonists on the battlefield of controversial opinion.

For years this change of attitude has only been prevented by a wrong conception of the ethical proscription against advertising, which is wholly inapplicable in the circumstances of group activities. The abuses to which the instruments of propaganda have been put have closed our eyes to the values when the method is used in accordance with our ethical principles.

The day of mute leadership is gone. The leader of today and tomorrow will be persuasive, he will reach out and ask for the understanding of others; he will never claim exclusive rights to be heard; he will lead by right of his superior reasons. We have nothing to fear in becoming better known.

The method is not so new as we may think. It was mentioned by St. Matthew when he said:

"Neither do men light a candle, and put it under a bushel, but on a candlestick; and it giveth light unto all that are in the house."

Two years ago, men of vision in the Medical Society of the County of New York

saw the need for a change in the attitude which had pervaded organized medicine. That organization entrusted to Dr. James F. Rooney and a committee denominated as Committee on Trends in Medical Practice the setting up of machinery to make organized medicine vocal and persuasive. On January 15, 1935, this committee established a Public Relation Bureau "for the purpose of bringing about a better understanding on the part of the public of the aims and purposes of the medical profession." Mr. Dwight Anderson was selected as director of the bureau and has developed a technic to carry out its purposes. After Dr. Rooney's resignation, I was named as the chairman of this committee, which consists of the chairman of every standing committee of the state society and four other members. The personnel at the present time consists of Drs. Groat, Hambrook, Nelms, Farmer, Elliott, Simpson, Kopetzky, Kosmak, and Jewett.

Thus, the committee has the advantage of the advice and assistance of the chairmen of all standing committees, together with that of other individuals selected because of certain specific contributions to our work, which they are known to be able to make.

In conclusion, "whither medicine" and "how are we going" depends upon how closely we adhere to the following basic principle: the public needs to be told what are their questions, and they must be told the answers, and they must be persuaded to act in accordance with the answers.

The old method was informative; the new method is persuasive. The old method tended to make the doctor admired and respected. The new method aims to make him also better *understood*.

The old method tended to differentiate him from the public, to place him on a pedestal or in a cave—aloof. The new method tends to identify him with the public by the very effort of persuading them.

The old method was by way of edict and fiat. The new method is by way of explanation and understanding.

## DEATHS

Dr. R. L. Hyder, Maryville; Lincoln Memorial University, Medical Department, 1901; aged 56; killed in automobile accident, January 3, 1937.

Dr. W. K. Sheddan, Columbia; University of Tennessee, Medical Department, 1887; aged 79; died January 8th, following an illness of several weeks.

Dr. Sidney Meeker, Memphis; University of Alabama, School of Medicine, 1907; aged 67; died January 8th.

With the death of Mrs. Fannie Richards, wife of Dr. A. F. Richards of Sparta, Tennessee, December 16, White County lost one of its most beloved women. Mrs. Richards, who for forty-one years had been a devoted wife and loving mother, won the hearts of White County's people with kindness and charity. Mrs. Richards reserved within her heart a warm place for the medical profession, who in turn accorded her the highest respect.

Mrs. Richards died at the age of sixty-four years at her home here of pneumonia.

S. E. GAINES,

W. M. JOHNSON.

## NEWS NOTES AND COMMENTS

Inasmuch as Dr. Vernon Hutton, a resident physician and member of the White County Medical Society for these many years, has seen fit to remove from our midst, we, the members of the White County Medical Society, in testimony of love and respect for Dr. Hutton, order these resolutions spread upon our minutes, a copy to be furnished to Dr. Vernon Hutton, and a copy furnished THE JOURNAL of the Tennessee Medical Association.

Dr. Vernon Hutton, a member of the White County Medical Society for about twenty years, has throughout that period shown that spirit of friendliness and co-



operation which marks him as a true devotee of organized medicine in this state. Dr. Hutton exemplifies the traditional qualities of the physician, and we, the members of the White County Medical Society, extend to Dr. Hutton our concerted wishes for that success and respect which his skill and qualities warrant in what new location he may choose.

In witness whereof, we have this day attached our signatures.

A. F. RICHARDS,  
W. M. JOHNSON,

*The White County Medical Society Committee.*

The American College of Surgeons is planning a sectional meeting to be held in Atlanta, Georgia, on February 3, 4, and 5. Headquarters will be at the Atlanta Biltmore Hotel, and the following states will participate: Georgia, Florida, North Carolina, South Carolina, Tennessee, Alabama, Mississippi, and Louisiana.

An active committee on local arrangements has plans in hand for a most interesting meeting. Dr. James L. Campbell is chairman, and Dr. D. Henry Poer is secretary of the committee on local arrangements.

This meeting will be of interest not only to fellows of the college but to the medical profession at large, and in addition, hospital trustees, superintendents, nurses, and other hospital departmental personnel are invited to attend the hospital conference.

There will be no registration fee.

#### THE CENTENNIAL OF THE UNIVERSITY OF LOUISVILLE MEDICAL SCHOOL

The University of Louisville Medical School is the second oldest medical school now in existence west of the Alleghenies and the oldest Municipal Medical College in the United States. It celebrates its Centennial March 31 to April 3, 1937, at Louisville, Kentucky.

The Alumni are urged to make their plans now to attend their alma mater and participate in the celebrations. There is an unexcelled clinical program by outstanding guest speakers. Ward rounds daily at the

hospital and lectures in the forenoon and afternoon. There will be numerous scientific exhibits in the various departments of the University. For the visiting ladies unusually interesting entertainment has been provided.

The Alumni will shortly receive advance notices and printed programs of the Centennial celebrations. They are urged to make their plans to attend now.

### WOMAN'S AUXILIARY

President-----Mrs. Theodore Morford  
Nashville

President-elect-----Mrs. W. T. Black  
Memphis

Press and Publicity-----Mrs. Oscar Nelson  
Nashville

The passing of an old year and the coming of a new year with all it may hold for each of us as individuals, and for us as an organization, makes it appropriate that we pause and take stock of ourselves. Instinctively we look back along the way we have come, evaluate our present position, and then seek to pierce the future and see what lies ahead. The Woman's Auxiliary to the Medical Association may well take pride in the advances it has made and the place it has come to occupy. The road behind is clearly one in which progress has been steady and sure. The present position is enviable. The doubts which once were rife, that there was need for such an organization, have melted away before its proved value and usefulness. What then of the future? The indications seem plain that there will be many invaluable services that such a group of intelligent, well-informed women may render the profession which they so honor and love. Let us remember that tact is always an indispensable attribute of such a group if it is to render the best service, and let us always act only on the advice of the profession we would serve. Let us keep ourselves well informed, both as to the affairs that concern the medical profession and as to the work and interests of the various units that make up our organization. No better way to keep so in-

formed can be found than to read the state medical journal and the Woman's Auxiliary notes to be found in it. But those notes can only be full and worth while as each county auxiliary sees to it that your state press and publicity chairman receives news from your county each month, on time, and as full as possible.

#### *Davidson County*

The Woman's Auxiliary to the Nashville Academy of Medicine and Davidson County Medical Society met on Friday morning, November 4, at the Y. W. C. A. During the business meeting reports of officers and chairmen of standing committees were heard. The auxiliary voted to sponsor a Girl Scout troop in South Nashville. A delightful Christmas program followed. Miss Mary Elizabeth Oman gave a reading, "Christmas Angel." A musical program was given by Mrs. J. Johns, vocalist; Mrs. Bruce P'Pool, pianist; and Mrs. A. L. Erwin, violinist. The members joined in singing a number of the best-loved Christmas carols. Mrs. W. W. Wilkerson gave a delightful account of the trip she and Dr. Wilkerson had recently taken to Mexico. The report of the membership chairman showed twelve new members and several renewed memberships. Following the meeting there was a luncheon at the University Club.

## MEDICAL SOCIETIES

#### *Anderson County:*

The Anderson County Medical Society held its regular meeting January 4 at Clinton, with splendid attendance, with Dr. H. D. Hicks, president, presiding.

Dr. W. L. Carden of Andersonville and Dr. E. Dickson of Coal Creek were sent letters of appreciation for their years of medical service. Replies from these doctors were received and read to the society. The replies expressed deep feeling at being remembered by their medical friends of the society.

A fine spirit of fellowship and cooperation prevailed at the meeting.

On February 1 the following papers are scheduled to be read: "Kinds and Causes," by Dr. W. B. Barton, Briceville. "Treatment and Complications," by Dr. J. M. Cox, Coal Creek.

#### *Bedford County:*

The Bedford County Medical Society met in regular session December 17, 1936, with Dr. Farrar, president, presiding. The following were present: Drs. Farrar, Conditt, Sutton, Ray, Reed, Woods, Burch, Shull, Moody, Womack, and Avery.

The retiring president, Dr. Farrar, read an interesting paper on "Hormonic Diagnosis of Pregnancy" that was enjoyed by all present. After this the society went into the election of officers for 1937. James W. Reed, Belfast, was elected president. James N. Burch, Shelbyville, vice-president; W. H. Avery, Shelbyville, secretary and treasurer. Delegate to the state medical association is T. H. Woods, Bell Buckle, and M. L. Connell, Wartrace, alternate.

In review of this year's work we note considerable more interest in the way of attendance and scientific papers than we have had in several years. We are looking forward to even greater achievements in 1937.

(Signed) W. H. AVERY, M.D., *Secretary*.

#### *Campbell County:*

The Campbell County Medical Society met in LaFollette on December 31. Dr. R. J. Buckman read a paper on "The Present-Day Status of Immunization." Discussion opened by Dr. J. P. Lindsey.

The annual election of officers was held. Dr. G. B. Brown, Jellico, was elected president; Dr. R. W. Lewis, Westbourne, vice-president; and Dr. R. J. Buckman, La Follette, re-elected secretary-treasurer.

Dr. Joseph McCain, now residing in Jacksboro, was made a member of the society. He is connected with the Public Health Department and is in charge of the work in Campbell County.

Members present were: Drs. J. W. Presley, J. F. Slemons, S. D. Queener, W. B. Rose, G. B. Brown, J. P. Lindsey, R. W. Lewis, R. L. Galaher, Joseph McCain, and R. J. Buckman.

R. J. BUCKMAN, *Secretary*.

#### *Davidson County:*

December 15—Case reports: 1. "Sub-acute Bacterial Endocarditis," by Dr. W. R. Cate. Discussed by Dr. O. N. Bryan.

2. "Gastric Resection for Multiple Ulcers," by Dr. E. L. Rippy. Discussed by Dr. L. W. Edwards.

December 22—"Acute Appendicitis — A Study of One Thousand Consecutive Cases," by Dr. Rollin A. Daniel, Jr., and Dr. James A. Kirtley, Jr. Discussed by Drs. Barney Brooks and W. D. Haggard.

December 29—"Clinical Experience with Protamin Insulin," by Drs. R. C. Derivaux and Albert Weinstein. Discussed by Dr. Edward L. Turner.

January 4—The annual banquet was held at the Woodmont Country Club.

January 12—"Non-Shadow Casting Renal and Ureteral Calculi," by Dr. J. C. Pennington and E. C. Lowry. Discussed by Dr. C. F. Anderson.

Case Report — "Gumma of the Brain Treated Surgically," by Dr. Cobb Pilcher. Discussed by Dr. O. N. Bryan.

#### *Dyer, Lake, and Crockett Counties:*

The Dyer, Lake, and Crockett Counties Medical Society met January 6. The New Year was started with a splendid program and good attendance.

1. "Vesicovaginal Fistula with Case Report," Dr. John Frazier, Newbern.

2. "Gonorrhea in the Female," Dr. J. L. Dunavant, Ripley.

3. "Diagnosis and Treatment of Duodenal Ulcer," Dr. J. G. Price, Dyersburg.

C. L. DENTON, *Secretary*.

#### *Washington County:*

January 7—"Pneumoconiosis," by Dr. J.

L. Hankins. Discussion by Drs. Gambill and Thompkins.

"Radium in Gynecology," by Dr. H. D. Miller. Discussion by Drs. Hankins and Moss.

#### *White County:*

The White County Medical Society closed its year's work in its regular meeting last Thursday, December 10, 1936, with a good attendance.

The election of officers for 1937 resulted in the election of Dr. J. C. Blankenship, Sparta, president; Dr. A. A. Bradley, vice-president; A. F. Richards, Sparta, re-elected secretary.

Dr. W. M. Johnson, Sparta, was elected delegate, and Dr. E. B. Clark, Sparta, alternate.

The society has met every month in the year with a good attendance; also a paper and discussion at each meeting.

The society has lost two members this year by removal. Dr. Isaac Barnes has moved from Bon Air to Whitwell, and Dr. Vernon Hutton from Ravenscroft to Nashville. This leaves our membership with eleven paid members. Our members are harmonious, and great good is resulting from our meetings. Meetings are held the second Thursday in each month. Dr. E. B. Clark is to read a paper in January.

(Signed) A. F. RICHARDS, *Secretary*.

#### *Williamson County:*

At the regular December meeting of the Williamson County Medical Society Miss Katherine DeYoung, supervisor of nurses for Williamson County, by special invitation, read a paper, subject "Whiter Nursing Today."

Dr. R. K. Galloway gave a résumé of "Typing of Pneumonia and Serum Treatment Thereof."

The following officers for 1937 were elected: Dr. J. Knox Galloway, president; Dr. W. F. Roth, Jr., vice-president; Dr. K. S. Howlett, secretary-treasurer.



## COMMITTEES

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The following is a list of the standing committees of the Tennessee State Medical Association provided for in the constitution and by-laws and appointed by the proper authority, together with some special committees appointed under the authority of a resolution by the House of Delegates.

Some of the committees are appointed for a definite period. In such instances the appointment of the committeeman expires with the meeting of the House of Delegates in the year stated opposite his name.

### COMMITTEE ON SCIENTIFIC WORK

H. H. Shoulders, Chairman, Nashville.  
A. F. Cooper, Memphis.  
Frank Harris, Chattanooga.  
A. H. Lancaster, Knoxville.

### COMMITTEE ON PUBLIC POLICY AND LEGISLATION

L. W. Edwards, Chairman, Nashville (1939).  
E. W. Cocke, Bolivar (1941).  
Battle Malone, Memphis (1940).  
Tom Barry, Knoxville (1938).  
T. R. Ray, Shelbyville (1937).

### LIAISON COMMITTEE

W. C. Dixon, Chairman, Nashville (1941).  
W. P. Wood, Knoxville (1940).  
Hiram A. Laws, Chattanooga (1939).  
Tom Mitchell, Memphis (1938).  
J. L. Raulston, Knoxville (1937).

### STATE TUBERCULOSIS HOSPITAL COMMISSION

W. S. Rude, Chairman, Ridgetop.  
O. N. Bryan, Nashville.  
C. M. Oberschmidt, Memphis.  
J. L. Hamilton, Chattanooga.

### HOSPITAL COMMITTEE

D. R. Pickens, Chairman, Nashville.  
E. H. Baird, Dyersburg.  
H. Quiggs Fletcher, Chattanooga.  
Kyle Copenhaver, Knoxville.  
H. B. Everett, Memphis.  
Lee Gibson, Johnson City.

### COMMITTEE ON INSURANCE

A. F. Cooper, Chairman, Memphis.  
C. M. Hamilton, Nashville.  
S. R. Miller, Knoxville.

### COMMITTEE ON MEDICAL DEFENSE

S. R. Miller, Chairman, Knoxville.  
H. B. Everett, Memphis.  
H. M. Tigert, Nashville.

### ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

W. P. Wood, Chairman, Knoxville.  
W. M. Searight, Memphis.  
L. W. Edwards, Nashville.

### COMMITTEE ON EDUCATION

O. S. Warr, Chairman, Memphis (1938).  
R. B. Wood, Knoxville (1938).  
W. G. Kennon, Nashville (1937).  
J. Marsh Frere, Chattanooga (1937).  
W. O. Baird, Henderson (1939).  
J. M. Lee, Nashville (1939).

The following committees are expected to serve under the supervision of the Committee on Education:

#### (A) COMMITTEE ON MATERNAL WELFARE

J. R. Reinberger, Chairman, Memphis.  
M. S. Lewis, Nashville.  
H. B. Hewitt, Chattanooga.  
Andrew Smith, Knoxville.

#### (B) COMMITTEE ON CHILD WELFARE

W. D. Anderson, Chairman, Chattanooga.  
Oliver Hill, Knoxville.  
H. G. Bradley, Nashville.  
W. L. Rucks, Memphis.

#### (C) CANCER COMMITTEE

Ralph Monger, Chairman, Knoxville.  
S. J. Sullivan, Cleveland.  
Howard King, Nashville.  
H. S. Shoulders, Nashville.  
J. W. McClaran, Jackson.  
Frank Smythe, Memphis.

#### (D) COMMITTEE ON PHYSICAL THERAPY

A. H. Meyer, Chairman, Memphis.  
W. E. Van Order, Chattanooga.  
J. F. Hamilton, Memphis.  
R. W. Billington, Nashville.  
J. P. Gilbert, Nashville.

#### (E) COMMITTEE ON POSTGRADUATE INSTRUCTION IN OBSTETRICS

Jas. R. Reinberger, Chairman, Memphis.  
Franklin B. Bogart, Chattanooga.  
O. W. Hyman, Memphis.  
John M. Lee, Nashville.  
J. O. Manier, Nashville.  
Otis S. Warr, Memphis.  
John B. Youmans, Nashville.

## LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

- President—Dr. W. L. Williamson, 915 Madison Avenue, Memphis.
- Vice President for West Tennessee—Dr. J. E. Powers, Jackson.
- Vice President for Middle Tennessee—Dr. J. O. Walker, Franklin.
- Vice President for East Tennessee—Dr. Lee K. Gibson, Johnson City.
- Secretary-Editor—Dr. H. H. Shoulders.
- Assistant Secretary-Editor—Dr. W. M. Hardy.
- Third District—Dr. Hiram A. Laws, Jr., Chattanooga.
- Fourth District—Dr. J. T. Moore, Algood.
- Fifth District—Dr. John W. Sutton, Petersburg.
- Sixth District—Dr. L. W. Edwards, Nashville.
- Seventh District—Dr. C. D. Walton, Mt. Pleasant.
- Eighth District—Dr. J. R. Thompson, Jackson.
- Ninth District—Dr. E. H. Baird, Dyersburg.
- Tenth District—Dr. W. B. Burns, Memphis.

Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

## TRUSTEES

- Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville.
- Dr. A. F. Cooper, Goodwyn Institute Building, Memphis.
- Dr. E. R. Zemp, Walnut Street, Knoxville.
- Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.
- Dr. John B. Steele, Volunteer Building, Chattanooga.

Delegates to the American Medical Association—

- Dr. E. G. Wood, Knoxville; East Tennessee.
- Dr. H. H. Shoulders, Nashville; Middle Tennessee.
- Dr. H. B. Everett, Memphis; West Tennessee.

Alternates—

- Dr. E. T. Newell, Chattanooga; East Tennessee.
- Dr. J. O. Manier, Nashville; Middle Tennessee.
- Dr. E. C. Ellett, Memphis; West Tennessee.

## COUNCILORS

- First District—Dr. L. E. Dyer, Greeneville.
- Second District—Dr. S. R. Miller, Knoxville.

## OFFICERS OF COUNTY MEDICAL SOCIETIES

	PRESIDENT	VICE PRESIDENT	SECRETARY-TREASURER
Bedford	James W. Reed, Pelfast	James N. Burch, Shelbyville	W. H. Avery, Shelbyville
Blount	H. A. Calloway, Maryville	G. D. Lequire, Maryville	W. C. Crowder, Maryville
Campbell	G. B. Brown, Jellico	R. W. Lewis, Westbourne	R. J. Buckman, LaFollette
Carroll	F. W. Hillsman, Trezevant	T. D. McKinney, Nashville	J. H. Williams, McKenzie
Davidson	Jack Witherspoon, Nashville	B. G. Marr, Dyersburg (Dyer)	J. P. Gilbert, Nashville
Dyer, Lake, Co. Lett	J. P. Baird, Dyersburg	W. L. Sumner, Ridgely (Lake)	C. L. Denton, Dyersburg
Giles	J. G. Waldrop, Lewisburg	J. O. McKinney, Friendship (Crockett)	A. W. Deane, Pulaski
Grady	U. B. Bowden, Pelham	A. H. Clements, Palmer	T. F. Booth, Pulaski
Hardin, Lawrence, Lewis, Perry, Wayne	Otis Whitlow, Savannah	J. V. Hughes, Savannah (Hardin)	T. F. Taylor, Monteagle
		V. H. Crowder, Lawrenceburg (Lawrence)	O. H. Williams, Savannah
		Paul Wylie, Hohenwald (Lewis)	
		J. W. Frost, Linden (Perry)	
		J. T. Keeton, Clifton (Wayne)	
Hart	F. P. Hess, Bells	John P. Shearon, Gates	Roy M. Lanier, Brownsville
Hickman	L. F. Pritchard, Only	C. V. Stephenson, Centerville	W. K. Edwards, Centerville
Knox	Henry Clay Long, Knoxville	A. R. Garrison, Byington	Jesse C. Hill, Knoxville
Lauderdale	J. R. Lewis, Ripley	J. H. Nunn, Ripley	Thos. E. Miller, Ripley
McMinn	S. Boyd McClary, Etowah		D. F. Seay, Englewood
Montgomery	F. A. Martin, Cumberland City	R. M. Workman, Clarksville	Philip L. Lyle, Clarksville
Obion	M. T. Tipton, Union City	F. B. Kimzey, Union City	W. B. Harrison, Union City
Polk	A. W. Lewis, Copperhill	H. P. Hyde, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	R. L. Witherington, Cookeville	Thurman Shipley, Cookeville
Roane	J. C. Fly, Kingston	L. A. Killeffer, Harriman	W. W. Hill, Harriman
Robertson	E. W. Adair, Springfield	W. P. Stone, Springfield	J. E. Wilkinson, Springfield
Shelby	O. S. Warr, Memphis	M. W. Searight, Memphis	A. F. Cooper, Memphis, Secretary
	J. J. Hobson, Memphis, President-Elect		J. H. Francis, Memphis, Treasurer
Smith	W. B. Dalton, Gordonsville	W. F. Boze, Carthage	Thayer S. Wilson, Gordonsville
Weakley	J. F. Taylor, Dresden	T. W. Jones, Martin	P. W. Wilson, Dresden
White	I. C. Blankenship, Sparta	A. A. Bradley, Cookeville, Route 3	A. F. Richards, Sparta
Williamson	J. Knox Galloway, Franklin	W. F. Roth, Jr., Franklin	K. S. Howlett, Franklin
Wilson	M. H. Wells, Watertown	R. N. Buchanan, Jr., Lebanon	R. B. Gaston, Lebanon

## ABSTRACTS OF CURRENT LITERATURE

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

The Relief of Labor Pains by the Use of Paraldehyde and Benzyl Alcohol. Kane and Roth. *Journal A. M. A.*, November 21, 1936.

The ideal agent or combination for obtaining analgesia and amnesia during labor should be safe for mother and child, should not prolong labor, and be easily administered. It should be free from objectionable side actions such as undue excitement, nausea, vomiting, and deleterious effects on vital organs. The authors believe that a mixture of paraldehyde and benzyl alcohol approaches the ideal.

The thorough cleansing of the lower bowel is of utmost importance. The dose of paraldehyde is 1.2 cubic centimeters to each ten pounds of body weight. Benzyl alcohol is always given in 1.5 cubic centimeter doses as its effects are more local. This mixture is instilled by gravity into the rectum followed by thirty cubic centimeters of normal saline solution. This is given at onset of labor pains. This combination given rectally produces complete amnesia in a large majority of cases without prolonging labor.

This solution is retained without difficulty except when the presenting part is pressing on the rectum. There has been no evidence of proctitis or local damage. Excitability is present only when improper technic was used. Patients are spared fatigue from bearing down and psychic shock from pain. They have no memory of suffering and sleep quietly from six to twelve hours after labor. The success of this method depends largely on strict attention to details of administration.

### DERMATOLOGY

By E. E. BROWN, M.D.  
Doctors Building, Nashville

Estrogenic Substance in the Blood of Patients with Acne.

By Theo. Rosenthal, M.D., and Theo. Neustaedter, M.D., New York City. *Archives of Dermatology and Syphilology*, October, 1935.

In a previous report by Theo. Rosenthal in collaboration with Kurzrok there was complete absence of estrin in twenty-seven out of thirty-four patients. In normal menstruating, fertile women Frank and Goldberger found one mouse unit in forty cubic centimeters of blood taken from the tenth to the third day before the expected menstrual period in forty-four per cent of their patients, and in 100 per cent from the third to the last day, an average of seventy-two per cent. Neu-

staedter found it in seventy-five per cent and Mazer and Goldstein in eighty-five per cent.

Using these figures as an average for normals, they selected twenty-nine consecutive acne patients with normal menstrual histories, ages from eleven and one-half to thirty-four years. Their results were strongly positive reactions (one mouse unit) in two patients, or seven per cent, weakly positive reactions (one mouse unit) in sixteen patients, and negative reactions in eleven patients, or a total of ninety-three per cent. Thus, they were led to believe that acne is associated with abnormal formation of or lack of utilization of the sex hormone. They also point out that the results of classical treatment of acne by irradiation may be due to the effect on the pituitary gland, thus inducing a normal ovarian response.

Relation of the Adrenal Glands to Hypertrichosis, Results of Irradiation of the Adrenals and Review of the Literature. By Henry D. Niles, M.D., New York, N. Y. *Archives of Dermatology and Syphilology*, October, 1935.

He believes hypertrichosis is due to overactivity of the adrenals. Thirty-one such patients were observed at New York Postgraduate School and Hospital. Twelve of these were irradiated but results were unsatisfactory. His review of the literature showed satisfactory results in a number of instances, both from irradiation and surgical removal of both benign and malignant tumors of the adrenals. In addition to the loss of hair in abnormal areas other evidences of hyperactivity, such as diffuse deposits of fat, male distribution of hair, hypertension, etc., were also greatly improved or entirely cleared.

### OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.  
Suite 316 Doctors Building, Nashville

A New, Rapid, Economical Test for Pregnancy and Certain Gynecologic Conditions. G. C. Gilfillen and W. K. Gregg.

The authors speculated as to the appearance of an anterior pituitary-like substance in the urine of pregnant women which suggested the idea that, this substance being present in her system, she might not be sensitive to its intradermal application, and, on the other hand, a nonpregnant woman might show a reaction to its presence.

The test consists of an intradermal injection of two cubic centimeters of fresh antuitrin "S" on the ventral surface of either forearm. It is important that the arm, needle, and syringe be sterilized with water rather than alcohol, for the latter reduces the potency of the antuitrin. Also intradermal injection must be made as deeper injections are not satisfactory.

After the injection the reaction is not read for thirty minutes. The reaction consists of an area of erythema around the site of injection measur-



ing in diameter seven to thirty-five or forty millimeters.

A patient who is pregnant or who has aborted and retained some live decidua cells does not react to the antuitrin-S. A patient who is not pregnant or does not have any retained living tissue of the products of conception promptly begins a reaction within one to three minutes. Fifteen case reports are given. This test is thought by the author to be a reliable guide in the diagnosis of obstetric and gynecologic conditions. To its advantage are the elements of time, simplicity, and economy.

The Gynecologic Aspect of Human Sterility. Samuel R. Meaker, J. A. M. A., 107: 1847-1849, December, 1936.

Max Huhner pioneered the field of human sterility twenty-three years ago. The author outlines recent advances from that date, showing marked improvement in diagnosis and treatment. He emphasizes the necessity of fundamental understanding of various factors causing sterility. He shows that the average childless couple presents four to five definite causes of sterility, and a thorough, complete, and intelligent examination of both mates is essential to arrive at a proper conclusion. The finding of one relative factor must not be assumed as the only cause of the sterility.

These multiple factors must be considered both from a genital and a constitutional angle. Emphasis is placed on constitutional and endocrine examination of both mates in addition to gynecologic and male urologic checkup.

Four important groups of gynecologic factors are enumerated: (1) female genital hypoplasia, secondary to ovarian and pituitary deficiencies; (2) thick endocervical mucus is shown to be hostile to normal virile spermatozoa (endocervical infections are a cause); (3) fallopian tube, partial or complete obstruction caused by venereal and non-venereal infections; (4) deficient oogenesis due to pituitary thyroid deficiencies or mechanical disturbance due to pelvic inflammation and adhesion.

The completed gynecologic examination including determination of uterine index, which is the relation of the length of the cervix in ratio to the body of the uterus, is important. Insufflation of the tubes with carbon dioxide and use of iodized oil as diagnostic measures are the further special tests advocated. Treatment is obviously dependent on the factors causing the sterility.

### OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
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A Statistical Study of Senile Cataract Operations at the Hospital Nacional de Clinicas Eye Service. R. F. Pereira. American Journal of Ophthalmology, December, 1936.

For the last five years 410 senile cataract oper-

ations are recorded. Glaucoma as a complication appears more frequent in those without iridectomy, and among them iris prolapse is also more common. The intracapsular method seems to be giving ground to the extracapsular method in this five-year period. Occlusion of the eye is made more certain by a suture in the skin of the upper lid fastened with adhesive to the cheek. The author's modified Elschnig capsule forceps has the concavity backward in order to obscure the field of operation as little as possible.

Routine of Cataract Extraction as Followed in the Mohan Eye Hospital, Aligarh. Lal A. Mohan. American Journal of Ophthalmology, December, 1936.

Some Indian surgeons perform as many as fifty cataract extractions per hour. Desire for better results and fewer secondary cataracts caused the author to adopt the intracapsular method, using the Knapp-Stanculeanu-Torok technique. In 250 cases he had only one case of iridocyclitis and three or four cases of iris prolapse. Morgagnian cataract is the only contraindication. The conjunctival flap incision is used, later putting in a single human-hair suture, which is very soft and does not irritate the eye. After Kalt-capsule-forceps lens delivery, a Hess peripheral iridectomy is made. Preliminary preparation includes lacrimal syringing. One per cent eserine follows the operation, and the patient walks to bed.

### OTOLOGY, LARYNGOLOGY, RHINOLOGY

By W. W. POTTER, M.D.  
Medical Building, Knoxville

Pulmonary Hemorrhage Studied and Treated by the Bronchoscopist. M. F. Arbuckle, M.D. Annals of Otolaryngology, Rhinology, and Laryngology, Volume 45, page 1114.

Bronchoscopists are frequently asked to see patients in consultation in an effort to establish the cause of bleeding. It is important to differentiate between true hemoptysis and bleeding from the pharynx, nose, mouth, etc. "Since it usually is possible to find the source of bleeding only when it is active, the necessity for examination at this time is obvious." The author, also, stresses the importance of being prepared, before beginning the bronchoscopic examination, for immediate transfusion. The donor should be present for immediate use if required. After thorough physical and X-ray study, localization to a definite area usually is possible. Cooperation between the bronchoscopist, the internist, and the thoracic surgeon is of paramount importance. He points out, in the order of their frequency, the causes of pulmonary hemorrhage.

First—Tuberculosis.

Second—Ulcer which is frequently associated with bronchiectasis or abscess.

Third—Tumor, most often malignant. Malignant

nant tumor is often accompanied by abscess formation and ulceration with erosion of the vessel walls and rupture following strenuous coughing.

Fourth—Aneurysm has been seen with erosion into a bronchus followed by severe bleeding.

Fifth—Broncholith, impacted or movable, with ulceration and bleeding.

Sixth—Unknown causes.

There have been great advances in the treatment of bronchiectasis, and the author states that every case of bronchiectasis should have at least one bronchoscopic examination. Not infrequently an unsuspected foreign body is found. Tuberculous individuals may be safely bronchoscoped if proper care is observed.

There are chest pictures and some reports of very interesting cases.

### **SURGERY—GENERAL AND ABDOMINAL**

By BATTLE MALONE, II, M.D.  
1400 Monroe Avenue, Memphis

Improvements in the Treatment of Cancer of the Rectum.

Richard B. Cattell, M.D., Boston, Mass. *Journal of A. M. A.*, December 19, 1936.

The purpose of this paper is to discuss the advances in the management of this condition for the benefit of the physicians who first see these patients. The experience gained from the treatment of 230 patients at the Lahey Clinic forms the basis for this discussion.

The improvement in the management of cancer of the rectum is divided into four heads: (1) early diagnosis, (2) preparation of the patient for operation, (3) operative, and (4) postoperative management. In spite of increasing interest in this subject and the repeated articles in the literature, a large percentage of patients who come to the surgeon for treatment have already had symptoms for nine months or more. While the lesion may be present for some weeks or even months without producing symptoms, the most important thing at present is for the physician who first sees the patient to recognize the possibility of malignancy of the large bowel. In an analysis of the total group approximately fifty-five per cent were found in the rectosigmoid or rectum, and a large proportion of these lesions are within reach of the examining finger if a careful digital examination of the rectum is made. Even if the lesion is higher up, it is often clearly visible through a proctoscope or sigmoidoscope. Adenomatous polyps often undergo transition into malignancies and should be properly and thoroughly treated by fulguration with follow-up examinations to show that the mucosa remains smooth over this area. This is a very definite means of reducing the incidence of cancer of the rectum. Wherever there is any suspicion of a lesion, X-ray examination with a barium enema should be utilized.

Preoperative preparation consists of the follow-

ing: (1) high caloric low residue diet, (2) a large amount of fluids, (3) salt and glucose solutions subcutaneously and intravenously, (4) blood replacement by transfusion in the anemic patients, (5) and measures for the relief of obstruction. Barium in the colon should be removed by enemas and irrigations. Sufficient time should be taken to have the patient in the best possible condition.

The type of operation used depends on the condition of the patient, the location of the lesion, and the extent of the malignancy. The author prefers a one-stage abdominoperineal operation if the condition of the patient will permit, but in debilitated patients where the growth is extensive a two-stage operation is indicated because of its lower mortality in this type of patient. Also, patients fifty-five years of age and over, as a rule, go through the operation with less danger and trouble when the two-stage operation is used. Poor-risk patients having cardiovascular disease, obesity, advanced years or general debility should be submitted to a more local type of resection such as was first described by Kraske. The author believes that radium and X-ray therapy should be used only in inoperable cases where a radical resection cannot be done. If the general condition of a patient is good, it is often justifiable, even in the presence of liver metastasis, to do a resection of the primary growth. In unfavorable cases resection of the presacral nerve should be done at the time of operation. This procedure definitely contributes to the comfort of the patient postoperatively, especially where there is involvement of the bladder. Spinal anesthesia is used in all the better-risk patients, supplemented if necessary by ethylene or cyclopropane.

Postoperatively transfusions are given routinely. Pulmonary complications are the major fatality factors to overcome. Postoperative urinary stasis and infection are avoided by constant bladder drainage for several days.

It is the surgeon's duty to instruct the patient in the management of the colostomy. By means of diet and colostomy irrigations the objectionable bag can be discarded. In the presence of a recurrence, radiation has a real place. Tables are presented to show the operability, types of operations used, and the operative mortality.

### **SYPHILOLOGY**

By E. G. CLARK, M.D.  
Tennessee Department of Public Health  
Nashville

Ten Years' Experience with Malaria in Neurosyphilis. Wile and Hand. *American Journal Syphilis, Gonorrhea, and Venereal Diseases*, 20: 630, November, 1936.

After ten years of treatment of neurosyphilis with malaria the authors analyze the results of therapy in 354 persons of the 474 treated. Those treated include patients with general paresis, tabes dorsalis, taboparesis, diffuse cerebrospinal syphilis,



acute basilar meningitis, juvenile paresis, and late and asymptomatic cerebrospinal syphilis. After careful examination including ophthalmological, neurological, renal, and serological, the patients were given three to five cubic centimeters of tertian malarial blood in the basilic vein. In some instances injections were given on three successive days. During the first eighteen months only cases markedly deteriorated were thus treated, but no such selections have been used since. Patients were allowed to have from eight to twelve paroxysms (eight only in past five years) and were then interrupted by ingestion of quinine sulphate, ten grains three times a day for three to six days. Some patients were treated further with bismuth and potassium iodide at the termination of the malaria therapy. Study of these 354 cases yields the following information: Contraindications are obesity, cirrhosis of liver, nephritis, cardiac disease as would be expected. Physical condition is more important than age. Symptoms were usually accentuated after treatment had begun. Of the paretics, fifty-three per cent were improved to the extent that they could resume their occupations. The root pains and crises of the tabetic were improved in fifty per cent of the cases. In view of other therapeutic procedures, the effect on optic atrophy was encouraging. Fifty-seven per cent of those with diffuse syphilitic meningitis of acquired syphilis were improved; of the congenital, only thirty per cent, but these could not resume usual activity; of the asymptomatic group, ninety-five per cent have remained asymptomatic. Treatment of juvenile paresis was disappointing. Those patients who had had previous treatment progressed more favorably. Cells were reduced in seventy per cent of the cases, globulin reduced in sixty-four per cent, but serology remained positive in eighty-seven per cent of the cases. Over half of those whose cells were not reduced have died. There was very little effect on the blood serological reaction. Malaria has a very definite place in the treatment of neurosyphilis of the acquired type. Improvement has been generally of longer duration than with other therapeutic measures.

### UROLOGY

By TOM R. BARRY, M.D., F.A.C.S.  
By G. A. WILLIAMSON, JR., M.D.  
Medical Building, Knoxville

Sterility in the Male. Hamilton W. McKay, M.D.  
Southern Medicine and Surgery, Vol. 95, No. 2.

Marked progress has been made in the past ten years in solving the problems of female sterility. As a result of this increase in knowledge have come physiological means of correcting disturbed reproductive functions.

In investigating large series of marriages drawn from all walks of life, statisticians estimate that between ten and fifteen per cent of American marriages are sterile. One investigator, in 300

marriages, found that twenty per cent of the sterility was the husband's fault.

No examination of marital sterility is complete without the examination of the male partner. The husband should be examined first for sterility, for obviously, if the fault is his, it saves many expensive and disagreeable examinations of the wife.

Past history is most important in the examination of the husband. He should be asked if he has had mumps, and if there were complications. He should also be questioned as to libido, potentia, recent severe infectious diseases, exposure to X-ray, and especially regarding venereal infections. The presence of normal sperm in the seminal fluid should next be determined.

Care should be exercised to keep the fluid at body heat until examination of the slide, and these should be examined within three hours at the most.

He states that systemic infections interfere with the metabolism of all body cells. By analogy it is inferred that spermatogenic cells with lowered vitality produce weak spermatozoa, and clinically this has been borne out by observing temporary sterility occurring in infectious diseases.

Changes in the pH of the seminal fluid toward the acid side are immediately injurious to the spermatozoa. The presence of toxins from an infected seminal tract are also deleterious. The finding of pus in the prostatic secretion may be causing immotility.

If no sperm are found after three or four thorough examinations, two possibilities present themselves. Either the spermatogenic tissue of the testicles is not producing sperms, or they are obstructed from passing out of the seminal tract.

Azoospermia is the less frequent of the two conditions.

Laboratory studies on rats have shown that dietary deficiencies and line breeding (mating of relatives) may produce azoospermia.

It should be borne in mind that azoospermia bears no relationship to sexual activity.

The condition is hopeless if the lack of spermatozoa is due to congenital absence or death of the cells producing the sperm.

He states that nonspecific infection of the seminal tract may produce occlusion of the seminal tract and sterility. Tuberculosis, posterior urethritis, occluding ejaculatory ducts, and surgery of the prostate may also produce blockage.

A number of ingenious surgical procedures have been devised to remedy the obstruction of the passage of sperm which are still present above the obstruction, but great judgment and care should be exercised in their use.

He states in conclusion that nothing can be done to restore congenitally absent spermatogenic tissue, or tissue that has been completely destroyed. Sterility due to obstruction can occasionally be remedied by surgery. Much can be done in treatment of male sterility that is due to infections of the lower sexual tract, and in cases which are a result of systemic pathology.



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## URETEROENTEROSTOMY—A COMBINATION OF THE COFFEY, FERGUSON, AND BRENIZER METHODS\*

L. W. EDWARDS, M.D., and HENRY L. DOUGLASS, M.D., Nashville

FOR MANY YEARS both the immediate and remote consequences of ureterointestinal anastomosis combined to make it an undesirable and hazardous procedure. Coffey's<sup>1</sup> contribution in 1910 has gone far in preventing complications in the upper urinary tract which previously had been responsible for the late mortality in those surviving the operation.

He discovered the fundamental fact that regurgitation into the pancreatic duct was prevented by the oblique course of the duct within the wall of the duodenum, and he applied this principle in uniting the ureter and sigmoid. Finally, he devised three methods of anastomosing these two structures, and in all of them this fundamental anatomical principle is observed.

Ferguson<sup>2</sup> described a method of anastomosing the ureter and intestine in two stages, an operation which he had used experimentally. In the first stage of the operation the ureters are mobilized and imbedded between the muscularis and mucosa of the bowel wall for about two inches, without interrupting their course and without opening the intestinal mucous membrane. After the intestinal wounds had healed, the second stage was performed by reopening the abdomen and creating a fistula between the lower part of the imbedded ureter and the lumen of the bowel.

Higgins,<sup>3</sup> in addition to imbedding both ureters in the bowel wall without interrupting their continuity, at the same time transfixing them and the intestinal mucosa with sutures as described by Coffey.

Brenizer<sup>4</sup> described a two-stage method of performing ureterointestinal anastomosis. The first stage consists of imbedding the ureters within the bowel wall, at which time each ureter is transfixed by a strand of tonsil wire, the ends of which are passed through the mucous membrane of the bowel into a colon tube and brought out through the anus. In addition, each ureter at a lower level within its intramural course is overlooped with a second strand of tonsil wire, the ends of which are likewise passed into the lumen of the intestine and brought through the anus. This technic enabled him to carry out the second stage entirely through the rectum. A fistula between the ureter and intestine was made by energizing the transfixion wire with an electric current which coagulated the tissue within its embrace and permitted its removal. A few days later the encircling wires were removed by severing the ureters with the aid of an electric current, following which urine could no longer enter the bladder.

In the fall of 1932, we performed ureterointestinal anastomosis on a series of dogs, using at first the three technics developed by Coffey. The results of our experiments with Coffey's first and second technics showed that dogs do not, as a rule, survive

\*Read before the Tennessee State Medical Association, Memphis, April 14, 15, 16, 1936.

an operation in which both the ureter and the intestinal tract are first opened, and then united. That type of operation was practically always followed by an infection which proved fatal within a week.

The immediate mortality following Coffey's third technic, the transfixion sutured method, was relatively much lower in our experience. Nevertheless, the late results of this operation were disappointing because a very large percentage of the dogs operated upon by this method died within a few weeks or months of uremia due to obstruction at the site of anastomosis. Therefore, the recognized methods of uretero-intestinal anastomosis proved quite unsatisfactory in dogs, due either to an operative death from infection or to a late death from ureteral obstruction at the site of the anastomosis.

The first stage of Ferguson's operation seemed theoretically sound, and the results of our subsequent experiments proved it to be a very safe operation. In our experience some rather serious objections developed to Ferguson's method of completing the anastomosis at the second stage. First of all, it is necessary to reopen the abdomen. Second, the seat of union between ureters and bowel is difficult to expose and is often accompanied by oozing from raw surfaces which cannot be easily covered. Thirdly, the fistula created at the second operation seldom remained adequate longer than a few weeks. We therefore attempted to develop a different technic for completing the anastomosis following Ferguson's first-stage operation. Guided by past experience, we decided that the best and most lasting fistula would result from complete division of the ureter. A technic was sought by which Ferguson's first-stage operation could be followed by complete severance of the ureters without reopening the abdomen. To realize this goal we, without knowledge of Brenizer's work, employed his technic of overlooping each ureter with wire, to modify Ferguson's first-stage operation. We did not transfix the ureters, but depended entirely upon total division of the ureter to divert the urine from the bladder into the bowel.

In preparing the patient for operation it is desirable to render the bowel dry and clean. This is best accomplished by giving one or two effective doses of castor oil at least thirty-six hours before operation, followed by a nonresidue diet, and a saline enema the night before. The patient should be well supplied with glucose and saline, and if secondary anemia is present as a result of a malignant neoplasm, a blood transfusion should be given.

In all cases where it is possible to catheterize the ureters, a No. 7 catheter should be passed to the pelvis of each kidney just before operation. These catheters are left in place until the anastomosis is to be completed at the second stage. They maintain adequate drainage of urine following the first stage when edema of the bowel wall or undue traction upon the encircling wires tends to obstruct the ureters. The results of our experiments emphasize the importance of this measure.

*Operation.*—The procedure is carried out under ether or spinal anesthesia, complete relaxation being desirable. With the patient in the Trendelenberg position, a mid-line incision is made extending from the

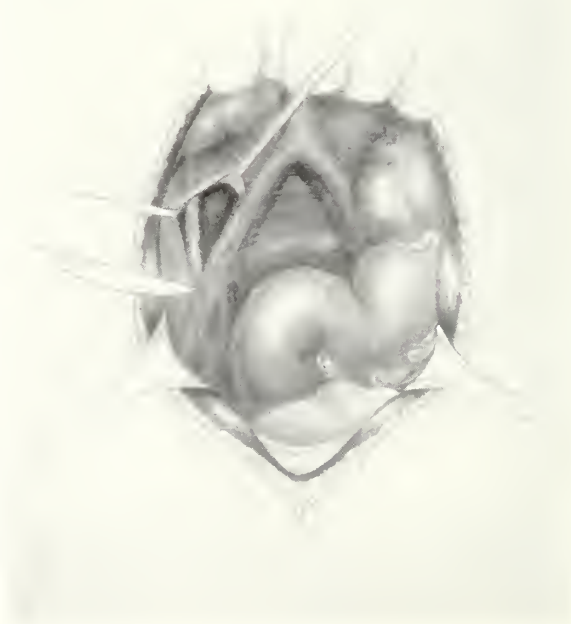


Fig. 1.



Fig. 2.

symphysis to above the umbilicus, the coils of small intestine are gently placed in the upper abdomen and held out of the field of operation by large gauze packs moist with saline. If the operation is a preliminary measure to complete cystectomy for carcinoma, a careful exploration of the abdo-



Fig. 3.

men should be made to determine if the disease has advanced beyond the possibility of cure. Furthermore, the presence of dilated ureters or hydronephrosis is a contraindication for ureterointestinal anastomosis.

The posterior layer of the peritoneum is now grasped with two Allis forceps and opened at a point where the ureter crosses the iliac vessels. (See Fig. 1.) The incision in the peritoneum is extended one and one-half inches above this point and for the same distance along the pelvic wall below, or almost to the bladder. By dissection with a blunt instrument the ureter is lifted from its bed of subperitoneal tissue

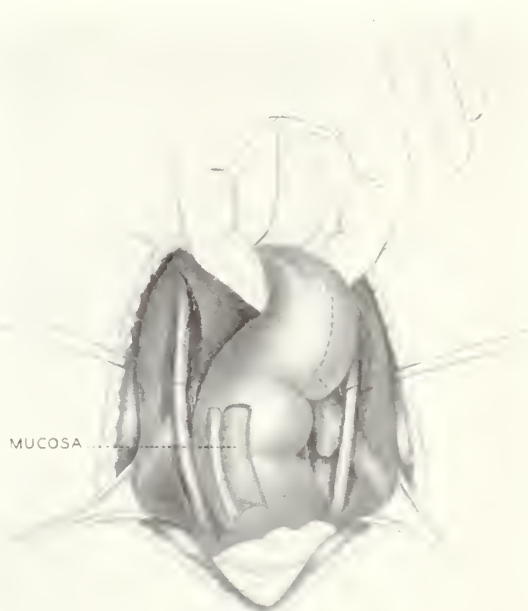


Fig. 4.

and held by a piece of silk passed around it and clamped with a hemostat. (See Fig. 2.) In stripping up the lower part of the ureter a plexus of small veins is often encountered, but the bleeding can be controlled by simple ligatures. In patients with cancer of the bladder where total cystectomy is contemplated, the first-stage operation includes ligation of both hypogastric arteries. (See Fig. 3.) The ligation of these arteries will convert cystectomy, if it



is not too long delayed, into a relatively short and bloodless operation.

A location is now selected on the right side of the sigmoid which lends itself to anastomosis with the right mobilized ureter. These two structures must be united without tension and with a minimum of anatomical distortion. (See Fig. 3.) The intestine is grasped with two Allis forceps placed two and one-half inches apart and held by an assistant while an incision is made lengthwise in the longitudinal band down to the mucosa. A flap of peritoneum and muscle, two and one-half inches in length, is gently dissected by gauze from the mucosa, thereby making a trough for the reception of the ureter. (See Fig. 4.) The ureter is placed in the incision which is then closed over it at the upper angle. This will serve to hold the ureter in position. (See Fig. 4a.) In the same manner the left ureter is partially buried in the left wall of the sigmoid but at a somewhat higher level.

An electrically lighted sigmoidoscope, especially designed with a window cut in the barrel just back of the obturator, is now passed into the lower sigmoid. The operator working from within the abdomen aids in gently guiding the instrument into place. The passage of the sigmoidoscope over the promontory of the sacrum will be made easier if the patient's buttocks lie well beyond the break in the table when the foot-piece is lowered. A silver wire, gauged 27,

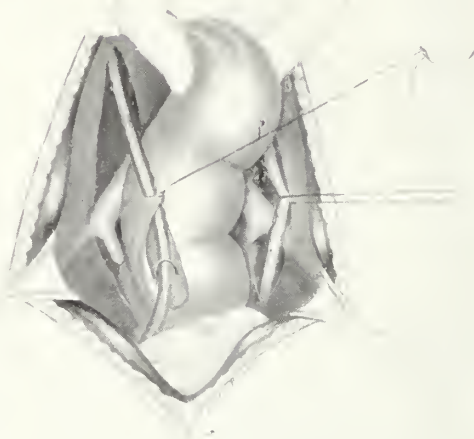


Fig. 4a.

with long straight needles welded on both ends, is looped over the ureter by passing the needles, one on either side of the ureter, through the intestinal mucosa and into the sigmoidoscope. Each needle, when introduced into the sigmoidoscope, is grasped with an alligator forcep and delivered outside the anus. (See diagrammatic sketch 5.) The wire loop should embrace the ureter in the lower third of its intramural portion. Small rubber tubing is passed over the limbs of the loop so that each strand of

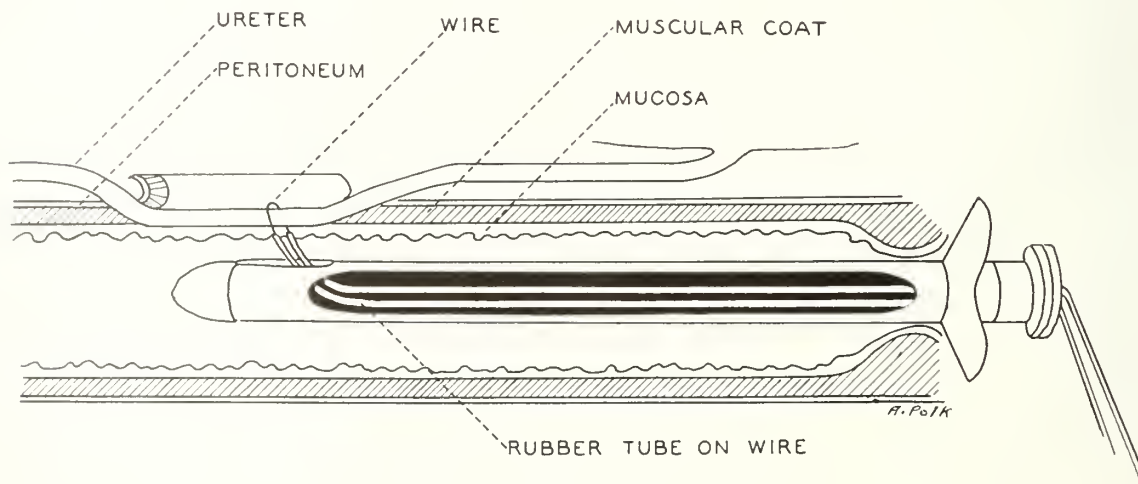


Fig. 5.



Fig. 6.

wire is insulated from the anus to the point where it perforates the mucous membrane of the bowel. The distal ends of each loop are then fastened together by a crushed shot.

Approximation of the muscular coat and peritoneum of the bowel wall is now continued until the ureter and the wire overlapping it are completely buried under two rows of sutures. (See Fig. 6.)

The incisions in the posterior layer of the peritoneum are closed. The site of anastomosis is immobilized and buried beneath the bowel by rotating the sigmoid laterally where it is anchored to the parietal peritoneum. (See Fig. 7.) The abdominal wound is sutured in the regular manner.

After an interval of ten days or more when healing of the bowel wall is complete, the patient is removed to a treatment room and placed in the lithotomy position. The ureteral catheters are removed. The two ends of each wire loop are twisted together to insure good contact between them. The wire loop is energized with a high frequency or cutting current while gentle traction is being made upon it. In this manner both ureters are severed and the flow of urine completely diverted into the sigmoid. (See diagrammatic sketch 8.)

In conclusion, we believe that in early and selected cases of carcinoma of the bladder this technic offers a relatively safe method of ureteral transplantation in man. However results following our experimental use of this method in dogs were unsatisfactory. In spite of absence of infectious complications, the dogs did not do well. They lost appetite, strength, often vomited, became listless and uremic. The nonprotein nitrogen of the blood progressively increased, and in those cases where the second stage was purposely not carried out, death commonly occurred within a month after the first operation. Frequently this train of symptoms was little affected by completion of the second stage when that operation was delayed sufficiently long after the first operation, ten to fourteen days, to permit firm union between the ureters and the bowel wall.

These findings are in contrast to those following Ferguson's first-stage operation where the ureters unincumbered by wire are buried within the bowel wall. That procedure appeared to have little or no unusual symptomatic effect upon the animals' post-operative course. In spite of this, however, we found that even after Ferguson's first-



Fig. 7.

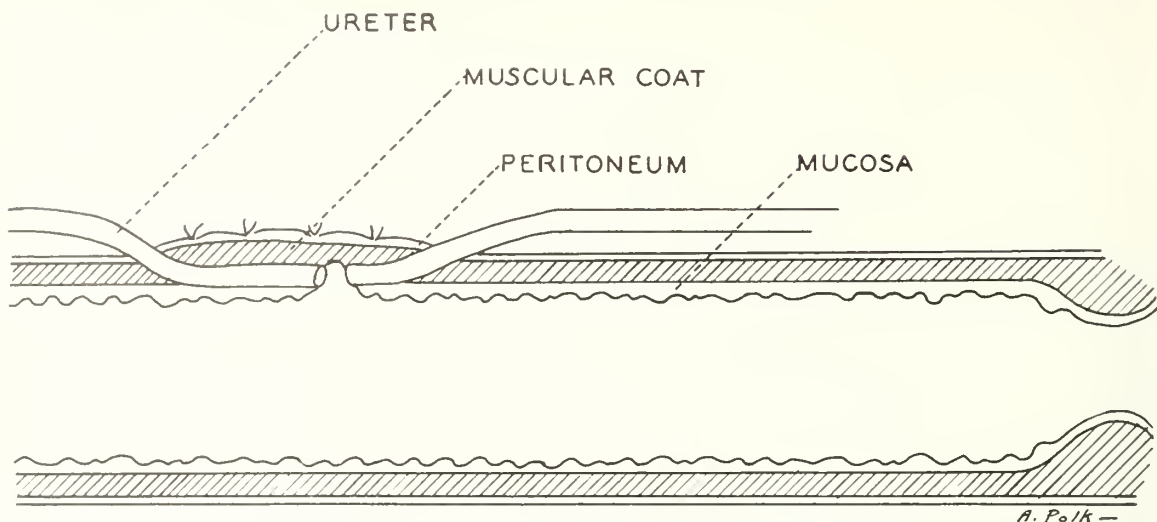


Fig. 8.

stage operation the nonprotein nitrogen in the blood was increased to an average maximum of 100 milligrams per 100 cubic centimeters of blood on the fifth postoperative day and that it later receded until its normal level was reached on the fifteenth postoperative day. It is apparent, therefore, that a certain degree of ureteral obstruction does follow this procedure, but it was always spontaneously relieved before producing any permanent renal damage which we could detect.

The fatalities which climaxed our experiments with the wire technic can be attributed entirely to an increased degree of ureteral obstruction which follows the use of wire. Both the degree and duration of that increased obstruction combine to bring about destructive changes in the kidneys. In consequence of that, before the wires can be safely removed, renal impairment has already advanced to a point at which the future health or life of the animal cannot be maintained.

It must be remembered however that certain undesirable effects of operation, which cannot be prevented in dogs, may be easily avoided in man. This is largely due to man's ability to adapt himself to the unusual requirements of a postoperative convalescence. In experiments on dogs, for example, it was found expedient to leave the ends of the wire loops coiled within the rectum. The loops could not be safeguarded by muzzling the dog. The weight

of fecal matter accumulating between and around the limbs of the loops, together with the peristaltic action of the bowel, was in a large measure responsible for the disastrous increase in ureteral obstruction. Moreover, in dogs, we were not able to successfully drain the renal pelves between the first and second stages with ureteral catheters, for reasons which are peculiar to dogs.

In operations upon man the excess length of the wire loops may clear the anus without harmful consequences. This alone should decrease tension on the wires and thereby lessen ureteral obstruction. However, drainage of the kidney pelves between the first and second operations by indwelling ureteral catheters is the best means of preventing the harmful effects of prolonged ureteral obstruction.

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#### DISCUSSION

DR. H. L. DOUGLASS (Nashville): The creation of a fistula between the ureter and sigmoid by a necrosing suture was Dr. Coffey's last contribution to this subject. We have found as a result of our experiments with the various accepted methods of performing ureterointestinal anasto-



mosis that this technic reduces postoperative infections, relatively speaking, to a minimum. However, it is not without certain objectionable features. In the first place the transfixion stitch does not always cut through as soon as it should. To overcome this difficulty Dr. Coffey devised an instrument that could be passed into the rectum and included in the grasp of the transfixion suture. The precautionary use of this instrument at operation enables one to forcibly remove the suture later on in the event it does not cut through as it should. In the second place the late results of our experiments with this technic were disappointing. Many of the dogs that survived bilateral ureteral transplantation by this method long enough, that is three months or more, developed a stenosis at the site of one or both anastomoses. Only in a few instances were we able to produce an opening between the rectum and ureter which functioned well indefinitely. The most satisfactory permanent results in our experience were obtained by bringing the end of the ureter well within the lumen of the bowel—Coffey's first technic. It seemed desirable, therefore, to employ in man a technic which, when completed, would approximate the end result of Coffey's first operation as regards the anatomical relation between the end of the ureter and the lumen of the bowel.

In 1935 Brenizer described a new method of performing bilateral ureterointestinal anastomosis in two stages. At the first operation when the ureters, their continuity intact, are buried beneath the peritoneal and muscular coats of the bowel wall, each ureter is transfixed by a strand of tonsil wire, the ends of which are passed through the intestinal mucosa into a rectal tube and delivered through the anus. At a lower level in their intramural course each ureter is overlooped by a second strand of tonsil wire, the ends of which are disposed of in like manner. Subsequent removal of these wires through the rectum is made with the aid of an electric current; first the transfixing wires and later the encircling wires enabled him to complete the anastomosis and divert all the urine into the bowel without reopening the abdomen. The technical details of the operation may be found in the May, 1935, issue of the *American Journal of Surgery*.

In our work we have preferred to use silver wire. In one case in which we employed tonsil wire and allowed it to remain in place two weeks one of the loops broke under the influence of the cutting current as it was being removed. Apparently, however, the break did not occur until sufficient current had been delivered to sever the ureter, since the results of the operation were quite satisfactory. Examination of the broken loop disclosed that the wire had been impaired by the action of the tissues. Silver wire does not deteriorate in tissue, and it has the additional advantage of being more pliable.

DR. ALFRED D. MASON (Memphis): Since Dr. Coffey first reported his original work on

ureterointestinal anastomosis, efforts have been made by many operators to improve upon the method. Although many improvements have been made in the technic, a perfect method apparently has not yet been found.

I feel that the work being done by Dr. Douglass and Dr. Edwards along this line is a distinct contribution to the technical improvement of an operation which can be used to bring physical relief and social restoration to that group of unfortunate individuals who either because of constant urinary leakage or advanced bladder disease are suffering from a condition worse than death itself.

This operation described to you by Dr. Edwards seems to be a modification of the operation originally described by Dr. Addison G. Brenizer, of Charlotte, North Carolina, in a paper read before the Southern Surgical Association at Sea Island, Georgia, in December, 1934.

Both of these methods employ a loop of wire passed from within into the lumen of the sigmoid and energized by an electric current for cutting the opening between the ureter and intestine. Both methods employ the technic used by Dr. Ferguson and Dr. Higgins for implantation of the ureter into the intestinal wall and allowing the urine to continue its course through the ureter until it has been firmly imbedded in its new position. This was quite a forward step in the improvement of technic.

The chief variations in the technic of Drs. Douglass and Edwards from the technic of Dr. Brenizer appear to me to be as follows:

1. Dr. Brenizer, instead of the silver wire welded to needles, uses tonsil wire, which can be inserted through the intestine without the use of needles. The wire is then run through a rectal tube for insulation.
2. Dr. Brenizer energizes his wire with the coagulation current instead of the cutting current.
3. Dr. Brenizer recommends the employment of two wire loops on each ureter. One wire acts as a transfixion suture passing into the lumen of the ureter and then through the intestinal wall in the same manner as the necrosing suture of Higgins. The other wire passes over the ureter distal to the first one, and is used to sever the ureter from the bladder after connection with the intestine and free flow of urine is established by the first wire. He energizes the first wire in three days and the second wire at about twelve days, thus cutting the ureter away from the bladder and stopping the flow of urine without the necessity of a second operation or without reopening the peritoneum at the time of total cystectomy.
4. Drs. Douglass and Edwards employ the especially designed sigmoidoscope with the window cut in the barrel, which should facilitate the manipulation of the wires within the sigmoid.

It has been a privilege to hear this excellent presentation by Drs. Douglass and Edwards, and I wish to thank them for the privilege of discussing it. I wish also to encourage them to continue their

experimental and clinical work in this particular field of urologic surgery.

DR. M. G. SPINGARN (Memphis): I have listened to this paper and have thoroughly enjoyed it. There is one thing I want to do, and that is to read a passage from the American Journal of Surgery, May, 1935, by Dr. Brenizer.

Dr. Douglass said that Dr. Brenizer depended upon the looped silver wire to do the cutting. He does not. I will read you this little short passage and you may draw your own conclusions.

"Necessity is the mother of much thinking and many ideas. A woman, Mrs. T, who had been treated for cervical carcinoma with radium, presented herself literally with the whole floor of her bladder and anterior wall of the vagina all out." All four of his fingers, he said, could be put into that. I will skip the rest of this because it is not material. "The following technic was carried out. A rectal tube was inserted into the rectum. Both ureters were exposed. Two incisions were made into the rectosigmoid, through the serosa and muscularis down to the mucosa. A piece of tonsil wire was bent like a hairpin and looped over the lower end of the right ureter and passed through the mucosa at the lower end of the incision and into the opening of the rectal tube."

Now listen to this: "Then a like piece of wire pierced the right ureter and was also passed down into the rectal tube. The rectal tube was shifted down and the same procedure performed with the left ureter. The muscularis and serosa were closed over the ureter. The lower ends of the transfixing wire were bent for identification and attached to the elastic tension."

Now here is the important point again: "After three days, under the guidance of the proctoscope a small rectal tube was passed over the transfixed wires to insulate it and the wires were touched with an electrocoagulation current." Get that, gentlemen, the wires were then touched by an electrocoagulation current. "And the wire cut through. On the twelfth day the lower wire looping the ureter was pulled down upon its part and a low current arranged so that when the electrode was applied to the wire the effect would be not only to cut slowly through the ureter and rectal mucosa and to necrose the tissue for a slight distance around, but also through the hole to dislodge the ureteral ends."

Gentlemen, I cannot see much difference from that and what was illustrated for you on the board.

DR. H. L. DOUGLASS (closing): Let me repeat certain features of these technics to avoid confusion. Dr. Brenizer described in the May, 1935, issue of the American Journal of Surgery a method of diverting the flow of urine into the bowel, which he had employed to relieve a woman with an irreparable vesicovaginal fistula. Excerpts from this article have been read. In that operation he relied upon a transfixing wire to produce the permanent fistula into the bowel. Complete division of the ureter by a second wire which encircled the ureter at a lower level was made to prevent further urinary drainage into the bladder. In the operation described by Dr. Edwards the ureters are not transfixed. Only two wires are used in the operation—one silver wire looped over each ureter. An interval of ten days to two weeks is allowed for healing during which time the kidney pelves are drained by indwelling ureteral catheters. At the second stage the ureteral catheters are removed, and each ureter is completely severed by traction on the wires while they are energized by a cutting current. These are the technical differences between the two methods under discussion.

In this connection I call attention to a more recent paper on this subject which Brenizer read before the Southern Surgical Association last December. In this paper, which will be published in the Annals of Surgery, the author discussed the same method of performing ureterointestinal anastomosis which the essayists have described. He concluded that, although the use of only a single wire looped over each ureter simplified the technic, it was a safer procedure to first establish ureterointestinal fistulae by means of necrosing sutures ingeniously tied so as to include metal rings, and later divide the ureters at a lower level by removing the overlooped wire. In discussing the paper we pointed out that mortality following the experimental transplantation of the ureters by means of a single wire technic depended upon ureteral obstruction between the first and second stages of the operation. We, therefore, suggested that when this technic is employed in patients, in whom preoperative ureterocatheterization is possible, the obstruction could be avoided by draining the renal pelves with indwelling catheters during the periods in which the wire loops are in place. I am sure this reference establishes Brenizer's priority for both methods and I hope it will also serve to differentiate these technics.

## THE DIPHTHERIA CONTROL PROGRAM FOR TENNESSEE

W. C. WILLIAMS, M.D., Commissioner of Public Health, Nashville

**A**N ANALYSIS of the cases of and deaths from diphtheria in Tennessee during the past ten-year period indicates that, except for a few isolated areas where perhaps a rather intensive immunization service has been conducted throughout the entire period, there has been no markedly significant decline in the case and death rates for the state as a whole. It is hardly worth our while to make an extensive analysis to determine the factors contributing to this situation. Suffice it to say that chief among the factors are the lack of means for procuring preventive material locally and the resultant failure in getting even a small percentage of the most susceptible age group protected against diphtheria.

Diphtheria is a disease that is comparatively easy to diagnose. A throat swab, properly taken and handled, makes diagnosis of the pharyngeal type relatively easy. The laryngeal type must be diagnosed, in most instances, on the basis of clinical and physical symptoms. More than eighty-five per cent of all cases and deaths from diphtheria are in children between the ages of six months and six years, inclusive.

The diphtheria antitoxin, if potent and given early in the disease, will prevent ninety-nine per cent of all deaths. We know, too, that there are three substances that are fairly effective as a preventive measure, namely: diphtheria toxin-antitoxin, plain diphtheria toxoid, and alum precipitated diphtheria toxoid. The relative merits of each will not be discussed, since most authorities agree that, if each is used as directed, at least eighty per cent of all persons treated will be protected.

The Schick test is quite reliable in the determination of an individual's susceptibility or immunity.

The preceding points may appear quite elementary to the average physician, yet when we consider them as a group, their aggregate importance, or rather the lack of their universal application by the mass

of our medical profession, combined with the ignorance and indifference of an apathetic public, resulted in 186 deaths and 1,265 cases of diphtheria in Tennessee during 1935. Here is a disease the cause of which is readily known. It can be readily diagnosed by laboratory methods. A specific and effective preventive is available. Eighty-five per cent of the cases and deaths occur in children six years of age and under. The individual immunity status can be readily determined by skin testing and a special antitoxin is available for therapeutic purposes, yet hundreds of children continue to suffer and die every year because of the lack of intelligent application of minimal control procedures.

The state board of health urges the co-operation of every physician in Tennessee in helping to eradicate diphtheria. It is a well-known scientific fact that, if seventy-five per cent of all susceptibles are protected, the possibility of a diphtheria epidemic is practically eradicated. The immunization program must be directed toward and concentrated on the protection of the most susceptible group, that is, children of the infant-preschool age. The alum precipitated diphtheria toxoid will be made available upon request and without cost to every physician in the state. It is our hope that the physicians will then see that the rich and poor alike have an equal opportunity for protection. The one dose of alum precipitated toxoid should make immunization in the home or in the physician's office a relatively simple procedure. If universally practiced, it should result in the virtual eradication of diphtheria. Inquiry should be made about the immunity status of each child within the physician's family clientele, regardless of whether the parent or parents are seen in the home or at the doctor's office. This should come under the heading of general family medical service, and all physicians are agreed that such an inquiry is not a violation of medical ethics. If we protect the infant group, there will be no



need for wholesale immunization clinics for the preschool and school child later on. The state department of health recommends the following immunization procedure:

1. Unless otherwise contraindicated, all children between six months and six years of age, inclusive, who have never received a diphtheria preventive, should be given the alum precipitated toxoid without a preliminary Schick test.

2. All children seven years of age and older should be Schick tested, and toxoid administered only to the Schick positives.

3. All children should be Schick tested about ninety days after toxoid has been administered. The toxoid should be repeated on all Schick positives, unless otherwise contraindicated.

4. A toxoid protein sensitivity test should be made on all children in either group and preliminary to the toxoid injection, if the physician has any reason to believe the child is susceptible to the toxoid protein.

The alum precipitated toxoid and material for the sensitivity test will be forwarded without cost to every physician upon request, and upon the following conditions:

1. Full-time county or district health departments will serve as toxoid distributing centers for their respective jurisdictions. Physicians residing in these areas should make their request for toxoid directly to the full-time health department. A record of immunizations given should be furnished the local health officer, if requested. All requests to the state health department from full-time areas will be promptly referred to the local full-time health officer concerned.

2. Physicians in areas without full-time health service should make their requisitions for toxoid directly to the state health department at Nashville. The following conditions governing distribution in these areas have been adopted by the state board of health:

- a. Each physician receiving toxoid will be expected to return to the state health department a complete record of each child immunized. A reasonable allowance will be made for toxoid wastage, but it is expected that at least forty records will be returned

for each fifty cubic centimeters of toxoid distributed.

- b. Blank record cards will be included with each toxoid shipment. A return business envelope requiring no postage will also be included with each shipment for the physician's convenience in returning the completed cards. All cards should be returned within six months or sooner if additional toxoid is requested. Cards must be returned to the state health department office before requisitions can be filled. To some, this may seem an imposition, but it is most essential that this be done, if we are to study the effects of immunization on diphtheria incidence.

- c. Toxoid will be sent directly to the physician requesting it. Approval of the request by the local part-time health officer or board of health will not be required.

- d. Physicians are urged not to order more than one month's supply at a time.

- e. *Schick material will not be available for distribution by the state department of public health.*

In addition to furnishing toxoid without cost and paying the postage on cards returned, a notification system has been set up in the state health department, whereby the parents of each child will receive a notice urging them to take their baby to the family physician for immunization against diphtheria as soon as the child is six months of age. These notices cannot be sent to the parents on time unless birth certificates are completely filled out and filed promptly. The success of this program will in a measure be directly dependent upon the promptness and completeness of birth reporting. Physicians are urged to see that these records of birth are filled out and turned over to the local registrar, in order that there may be no delay in getting this record to the state health department office.

The state department of public health will be glad to receive suggestions from physicians as to how it may further assist them in this campaign against diphtheria. It is a cooperative project, the success of which depends upon the active cooperation of all groups concerned.

## PRESENT STATUS OF SURGERY OF THE AUTONOMIC NERVOUS SYSTEM\*

THOS. D. MCKINNEY, M.D., F.A.C.S., Nashville

INTEREST IN SURGERY of the autonomic nervous system was greatly stimulated in 1924 by the work of Hunter and Royle. Since this time a large volume of experimental and clinical information has been added to our knowledge of anatomy, physiology, and the disorders which result from dysfunction of this division of the nervous system. Surgery has become a well-recognized procedure in the treatment of a large variety of diseases in which an overactivity of smooth muscle fibers is the basic factor in the production of symptoms. The indication for surgical treatment in these conditions is based on the symptoms and the results obtained by section of the sympathetic nerve supply to the organs or regions involved.

Any discussion of the status of the surgery of the autonomic division of the nervous system calls for a review of our present knowledge of the anatomy, physiology, and pharmacology involved in the surgical treatment of disorders of this *division* of the nervous system.

## ESSENTIAL ANATOMY

The autonomic nervous system consists of numerous ganglia, nerves, and plexuses through which autonomic reflex centers in the cord, medulla, diencephalon, and cerebral cortex are connected with smooth muscle and gland tissue of the body. Impulses are transmitted from these central autonomic centers through two neurons; from the centers to ganglia by a visceral efferent cerebrospinal or preganglionic neuron, and from ganglia to viscera by the second or postganglionic neuron. Certain efferent cerebrospinal nerve components, both visceral and somatic, are functionally associated with the autonomic nerves. Anatomically and functionally the autonomic system is divided into *sympathetic*, or thoracolumbar, and parasympathetic, or craniosacral. The sympathetic division

consists of the ganglia and nerves of the thoracolumbar chain. This chain is anatomically and functionally connected with the central nervous system through visceral efferent fibers of the spinal nerves. The parasympathetic division consists of ganglia which are connected with the centers in the brain stem, diencephalon, and cerebral cortex through preganglionic component of the third, seventh, ninth, tenth, and eleventh cranial nerves, and with the spinal cord centers through preganglionic components of the second, third, and fourth sacral nerves.

Physiologically and pharmacologically the sympathetic and parasympathetic divisions differ widely in their response to stimulation and to the administration of certain drugs. The sympathetic division is stimulated by adrenalin, ephedrine, and cocaine, and is depressed by ergotamine and ergotoxine. The parasympathetic is stimulated by physostigmine, pilocarpine, and acetylcholine, and is depressed by atropine, hyoscine, and homatropine. The two divisions are said to act antagonistically in their function of regulating the visceral activities so that the body is brought into harmony with the changing internal and external environment. This concept of antagonistic action is not invariably true, since we often find clinical evidence which suggests, as expressed by Brown, a mutual synergy between the two divisions. The sympathetic division acts as the catabolic agent or spendthrift division that uses up the body reserve. Cannon has found that the sympathetic impulse is mediated to the cells through a hormone called "sympathin." This substance is formed at the nerve ending and when liberated into the bloodstream produces an effect practically identical with that of adrenalin. The sympathetic division acts as a protective mechanism and is brought into activity by such conditions as pain, extremes of temperature, asphyxia,

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hemorrhage, infection, dehydration, and hypoglycemia. Intense emotional or physic trauma may stimulate a sympathoadrenal discharge. The functions of the parasympathetic division are of an anabolic character and come into play in the periods of rest and recuperation and are carried out by a group of reflexes, which are conservative, protective, and upbuilding in character, narrowing the pupil, protecting the retina from excess light, providing flow of saliva and gastric juices, increasing the tone of gastrointestinal canal, assuring proper digestion, absorption, and elimination of food. Further evidence of this conservative function is seen in the provision for rest and recuperation of the cardiac muscles in vagal slowing of the heart rate. The sacral division functions mainly in the emptying of hollow organs, causing contraction of the lower colon, rectum, and urinary bladder at the same time the sphincters of these organs are relaxed. So long as the activity of these two divisions of the nervous system remain in a state of balanced opposition, the body as a whole meets the ever-changing external and internal environments automatically. This coordination of function has been termed "homeostasis" by Cannon. When the homeostatic control breaks down, certain abnormal conditions result. It is here that the surgeon may be called upon to assist in correcting this imbalance between the two divisions by paralyzing the nerves which bring it about. Surgical attack has been confined almost solely to the sympathetic division. Rarely has surgery been employed on the parasympathetic division.

#### DIAGNOSTIC AND PROGNOSTIC TESTS

In the past, failure to achieve satisfactory results from surgical intervention has been due very largely to our lack of knowledge of the exact anatomy and physiology involved, and to improper selection of cases suitable for surgical attack. During the past ten years, while surgery of the sympathetic nervous system was in a stage of "trial and error," certain tests have been devised which aid in selecting suitable cases for operation. By producing local paralysis, the reactivity of a particular physiological

unit of the autonomic system may be determined in advance of the operative procedure. The general sensitivity of the autonomic system may be determined by the use of certain drugs. Epinephrine, adrenalin, and ergotamine were employed to determine the sensitivity of the sympathetic division. Atropine, pilocarpine, and acetylcholine have been used to determine the reactions of the parasympathetic division. However, testing the clinical subjects with these drugs has not been found to be very satisfactory, and newer methods now employed measure the quantitative reactions of the autonomic nervous system and accurately indicate the cases suitable for surgical attack on the sympathetic division.

*General vasomotor reactivity* may be determined by the application of stress in the form of exercise, posture, heat, and cold. Standardized tests have been evolved which measure the degree of vasomotor response, which, when compared with the response of normal individuals, aids in differentiation of functional from organic disease.

*Brown's test* for vasoconstriction measures the degree of vasodilatation in the extremities brought about by artificially-produced fever. Twenty-five to fifty million killed typhoid bacilli are injected intravenously after having recorded the patient's oral and skin temperature of the extremities. During the height of the fever which results, these temperatures are again taken. The *increase* in oral temperature is subtracted from the *increase* in skin temperature, and this figure divided by the increase in oral temperature. This gives the "vasomotor index." A vasomotor index of 2.5 is considered favorable for "sympathectomy" or nerve blocking. An electric thermocouple is necessary for accuracy in determining temperature changes in these studies.

*General anesthesia* causes peripheral vasodilatation but is seldom employed in the study of vasoconstriction.

*Spinal anesthesia* involving the cord to the tenth thoracic level produces paralysis of the sympathetic supply to the lower limbs and may be employed as a test for vasomotor reaction in vascular disorders of the lower extremities.

Probably the most satisfactory method



of testing the vasomotor reaction of any physiological unit of the sympathetic system is the local injection of the appropriate sympathetic ganglia with one to two per cent novocaine. The degree of vasodilatation as determined by the temperature reaction of the part and the degree of relief of pain accurately represents the results to be anticipated following procedures for permanent paralysis of the sympathetic tracts involved.

*Effects of Interruption of Sympathetic Nerve Pathways.*—Operations on the sympathetic nervous system demonstrate that a considerable portion may be removed without disturbance of visceral function. Lumbar ganglionectomy, involving the second, third, and fourth lumbar ganglia, produces little or no harmful effect in the pelvic organs. Some patients complain of frequent bowel movement and dryness of the skin of the lower extremities due to the absence of sweating. Removal of the cervical and thoracic ganglia produces no disturbance of the heart action. This cervical operation results in Horner's syndrome; viz., constriction of the pupils, narrowing of the palpebral slit, and enophthalmus. This effect seems to cause the patient practically no inconvenience.

Some investigators have reported hyperesthesia of the skin following ganglionectomy, but this is not a constant result and is mild when it does occur.

*Conditions Amenable to Surgery of the Sympathetic System.*—Livingston lists the following conditions amenable to surgery of the sympathetic system. He divides this heterogeneous list into three groups as follows:

Group I. Those syndromes of which pain of visceral origin is the major characteristic, namely:

1. Angina pectoris.
2. Painful amputation stumps.
3. Tabetic crises.
4. Causalgia.
5. Inoperable carcinoma.
6. Dysmenorrhea.
7. Gastralgia.
8. Neuralgia (atypical cases).
9. Nephralgia.
10. Painful cystitis.

Group II. Those gastrointestinal disturbances which are reasonably ascribed to overactivity of the sphincter muscles or circular muscles elsewhere in the gut:

1. Hirschsprung's disease.
2. Pyloric stenosis.
3. Intussusception.
4. Cardiospasm.
5. Globus hystericus.
6. Spastic constipation.
7. Certain bladder dysfunctions.

Group III. Those having the common characteristics of functional limitation of blood supply:

1. Raynaud's disease.
2. Scleroderma.
3. Acrocyanosis.
4. Chronic arthritis.
5. Chronic ulcerations of the extremities.
6. Spastic paralysis.
7. Endarteritis and thromboangitis obliterans.
8. Retinitis pigmentosa.
9. Vulvar kraurosis.
10. Late cases of poliomyelitis.

In the limited time available obviously it is not possible to discuss each of these conditions nor the technique and scope of surgical procedure indicated for their relief or improvement.

Analysis of Group I, in which pain is the outstanding symptom, suggests that the relief of pain obtained by "sympathectomy" may be due to relaxation of spasm of the smooth muscle of blood vessels. In the same way smooth muscle relaxation affords relief in the gastrointestinal disturbances in Group II.

In Group III the relief or improvement following "sympathectomy" is due to the relaxation of vasospasm and the resulting improvement of blood supply to the parts. It is also possible that "sympathectomy" divides afferent pathways which conduct impulses of pain.

Recently neurosurgeons have been deeply interested in the treatment of essential hypertension by section of the splanchnic nerves. The dilatation of the splanchnic vessels, which follows section of the splanchnics, effects a lowering of the systemic blood pressure. An insufficient number of

cases have been reported to justify conclusions, but at present the procedure, in some instances, combined with partial adrenalectomy seems effective in relief of a large group of carefully selected hypertensive patients who are otherwise hopeless. Splanchnectomy may be employed in certain cases of intractable pain in the abdominal viscera.

#### SELECTION OF PATIENTS AND OPERATIVE PROCEDURES

In the selection of patients for operation it is highly important to keep in mind that the results following "sympathectomy" in any of the conditions above mentioned are in proportion always to the degree of sympathetic response obtained during the prognostic tests and to the accuracy and completeness of the interruption of sympathetic pathways to the parts. The most brilliant results are obtained in the functional conditions where the element of spasticity of smooth muscle predominates and the vasomotor response is greater.

Surgical operations on the sympathetic division have for their purpose interruptions of sympathetic pathways. This may be accomplished by the simple sectioning of nerves, as section of the splanchnics for hypertension and section of the presacral in disorders of the pelvic organs. However, extirpation of the sympathetic ganglia assures more thorough interruption of the pathways to the parts involved, and its effect is permanent. Ganglionectomy is therefore the procedure of choice at present for most conditions in which complete sympathetic denervation is indicated. The periarterial sympathectomy of Leriche, in which a section of an artery is stripped of its adventitial plexus, has a very limited field of usefulness at the present time. Ganglionectomy is performed in the cervical region for various disorders of the cervical sympathetic supply. Removal of the "stellate" ganglia, together with the first and second thoracic, interrupts the pathways to the upper extremities and the major portion of the supply to the thoracic organs. Extirpation of the second, third, and fourth lumbar ganglia interrupts the pathways to the lower extremities. These procedures, while technically difficult, carry

very low surgical risk when employed in suitable cases.

Sympathetic block may be accomplished by means of injection of alcohol into or about the appropriate ganglia. The results of the alcohol injection are usually temporary in character so that it may be necessary to repeat the injection in a few months.

The surgeon's problem is the proper selection of cases suitable for surgery and the determination of the *type* and *extent* of the procedure to be employed in the individual case.

Surgery is not a panacea in the treatment of disorders of the sympathetic nervous system and should not be resorted to in milder cases which respond to medical treatment. Cases too far advanced which fail to respond, when subjected to carefully executed prognostic tests, are not suitable for surgery. The results to be expected do not justify the risk. *Alcohol injection* should be substituted for radical operations in the poor-risk patients such as those with angina pectoris and senile ischemia of the extremities.

In the treatment of angina pectoris the neurosurgeons have practically discarded the major surgical procedure of ganglionectomy, substituting alcohol injection since the risk of a major operation is not usually justified in these patients. In a series of forty patients at the Massachusetts General Hospital, White and Mixter obtained relief of the pain of angina pectoris in sixty-seven per cent and marked improvement in seventeen per cent of the cases treated by *alcohol injections*. Flowthaw reports highly beneficial results from lumbar alcohol injections in seventy-five per cent of cases of arteriosclerotic endarteritis treated in the pregangrenous stage. This method of sympathetic interruptions is a valuable adjunct to the more radical surgical procedures.

Finally, I would emphasize the great progress that has been made during the past decade in this new field of surgery, and at the same time predict that more will be accomplished with less extensive procedures in the near future, as our knowledge of the exact anatomical course of the sympathetic pathways increases.



Again I would emphasize the fact that surgery is not a "cure-all" for the great variety of disorders resulting from dysfunction of the "sympathetic" system, for which it is now employed. In fact, it never cures the fundamental condition underlying the dysfunction. However, with our present knowledge in this field of surgery, we are able to relieve, completely or partially, the distressing symptoms in a large variety of conditions which have heretofore resisted all treatment.

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#### DISCUSSION

DR. R. E. SEMMES (Memphis): Dr. McKinney has outlined this new field of surgery and has described the principles and the purposes underlying the surgery of the autonomic nervous system. In fact, he has all but made the subject clear, and since I can't do this either I think that I might confine my brief remarks to a few practical aspects of the subject with which Dr. McKinney will probably disagree in part.

In the first place, I want to emphasize from my own experience the relatively little value of the pharmacodynamics and the great value of diagnostic blocking. In other words, you can determine ahead of time by the injection of novocain whether the pathways of pain will be interrupted by your proposed procedures and what disturbance or change in function will result from a sympathectomy which you expect to undertake.

Incidentally, the patient will be familiarized with the effect before the surgical procedure is instituted.

Briefly, from my own experience and the experience of men working in this field, the following conditions can be satisfactorily handled by sympathectomy, either by surgical section or alcoholic blocking:

I. Hirschsprung's disease, megacolon. There seems to be a uniformly satisfactory result obtained. In my four cases all of them have been completely cured.

II. Raynaud's disease. The condition in the lower extremity is permanently cured and in the recent more extensive sympathectomy done on the upper extremities you have a more lasting benefit.

III. In Buerger's disease the patients are always benefited, and the day of amputation put off and better stumps obtained, and certainly immediate relief of pain by sympathectomy.

In angina pectoris I have had very little experience except with alcoholic blocking. When this works it is very prompt and remarkable and of course its lasting quality is sufficient at least for the patient's expectancy.

Recently Dr. Carr reported twenty-eight cases with very successful results. Doing a superior cervical sympathectomy, which aims at interrupting only the efferent fibers—effecting only the spasmodic element in the disease.

IV. In pelvic pain of various sorts relief has been obtained. In what percentage I am unable to say. I think that the French have overdone this field and perhaps we have neglected it. This applies both to bladder pains and certain types of dysmenorrhea.

V. Pains of "causalgia" can usually be satisfactorily relieved by sympathectomy, and nothing else apparently does any good.

VI. The results in hypertension have been brilliant in some cases and very unsatisfactory in others, and I feel sure that with the proper selection of cases sympathectomy for hypertension has come to stay.

VII. The results from doing sympathectomies for certain selected cases of arthritis, while they were very striking, have not become very popular, and probably are falling into disrepute. The same is true of retinitis pigmentosa.

In scleroderma the few cases I have done have been very little benefited, and unless there is a definite Raynaud's element I think that there is no use in doing a sympathectomy for scleroderma.

Spastic paraplegia was one of the first conditions in which sympathectomy was done, and nobody does that now, I think, except two or three Australian surgeons, probably out of courtesy to Royal and Hunter.

In migraine, a certain amount of relief has been obtained and some patients apparently cured by sympathectomy. There are other newer treatments, by ergotamine, tartrate, etc., which probably would make the sympathectomy too much of a procedure to justify it.

In atypical neuralgia some benefit has been obtained. I have never done one of these myself, and so many of these cases are apparently functional in nature that I would not want to do any sort of operation on them.

The enthusiasm for these various measures is no doubt dependent upon our particular experience. Dr. Max Peet is very enthusiastic about the hypertension cases, Dr. Carr about the angina, and I am about the Hirschsprung disease; it just depends upon what one's particular experience has been.



DR. W. T. BLACK (Memphis): Dr. McKinney has so well described the autonomic or vegetative nervous system, first described by Langley, that I will speak mostly regarding its relationship to the female pelvis.

We know that the parasympathetic and the sympathetic nervous systems act upon the involuntary muscles and ductless glands. The application of sympathectomy in essential dysmenorrhea and pelvic pain is meeting with success. The operation of presacral sympathectomy has not been performed very extensively in this country, except in the last two or three years; nevertheless, they have been performing presacral sympathectomies for several years in Europe with good results.

It has been positively proven that presacral sympathectomy does not interfere with menstruation, with libido, nor with parturition.

In over thirty cases of sympathectomies the results have been excellent in the majority of cases.

The presacral nerve arises from the inferior mesenteric and lumbar ganglia. This nerve passes downwards through the prelumbar triangle formed by the bifurcation of the aorta and a transverse line running across the promontory of the sacrum. It then divides into the two inferior hypogastric nerves, passes back into the rectal fossa, then goes to Frankenhauser's ganglion. Here it receives fibers from the parasympathetic system from the second, third, and fourth sacral nerves. The nerve then runs over and supplies the uterus, the bladder, the vagina, and part of the rectum. So in doing sympathectomy or neurectomy to the part that is supplied by this nerve we get good results, both from pelvic pain and particularly from the dysmenorrhea.

The operation is not advocated in essential types of dysmenorrhea except in very selected cases. Only those cases that have been treated by all other means, including dilatation and the hormone treatment should be operated upon, otherwise we will

be performing many needless operations. Women who have had an essential type of dysmenorrhea from the beginning of puberty will often menstruate the next time without knowing they are menstruating until the flow starts, and those with severe bladder trouble will be symptomatically relieved immediately. Constipation is often relieved by a presacral neurectomy, but if the rectum is improperly supplied by this nerve, and according to Kuntz and others the nerve is very differently distributed in different people. Results depend upon its distribution.

We often have uterine bleeding in two or three days after a sympathectomy. We had this to occur in seven cases out of thirty, which proves that the sympathetic nerves are vasoconstrictors. The parasympathetic nerves are vasodilators which explains the uterine bleeding. This bleeding does not interfere with the next menstruation.

If you will select your cases properly and do not operate unnecessarily you will be rewarded with good results in these selected cases of dysmenorrhea and certain types of pelvic pain.

DR. T. D. McKINNEY (closing): I have little further to add other than again to emphasize the fact that we have arrived at a state in which we are able to properly select these cases. The varying results obtained in the past have been largely due to the fact that we did not recognize that different patients having the same condition would respond differently to sympathectomy but by using these preliminary tests, prognostic tests, we are able to determine which patient will respond and be benefited and which will not. I think the results in the future will be more uniform if we take this care in selecting the patients and as we learn more of the exact pathways and just the extent of the surgery to be used in the particular condition to interrupt the pathways to a particular part of the body.

I wish to thank you for your attention.

## THE MANAGEMENT OF GLAUCOMA\*

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THE BEST definition for glaucoma is probably the one given by Priestly Smith, in which he says glaucoma is increased intraocular tension plus the results of that tension. Its frequency, complexity, and doubtful prognosis make it one of the gravest conditions in the domain of ophthalmology. It is a disease usually involving both eyes, and if untreated or improperly treated, leads to blindness. Accurate diagnosis in the majority of cases is easy though time consuming; on the other hand, it can be a very difficult diagnosis to make. One should be positive beyond the shadow of a doubt before even suggesting the possibility of this disease to the patient.

In the diagnosis there are five essential points: *History* of brief periods of decreased vision is important, colored halos around lights, pain in or about eyes, and prolonged accommodation time after passing from a dark to a light room are suggestive points.

The *visual acuity* changes vary with the type of glaucoma. In acute or in secondary glaucoma, sight may be rapidly lost in the first few hours; in other forms, decreased vision is a sign of advanced disease.

*Clinical observations* are an anesthetic and steamy cornea, shallow chamber and dilated pupil, blueness of pupillary area (often mistaken for cataract), excavation of the nerve head usually with an overhanging margin, and in chronic glaucoma the injection is episcleral as well as circumcorneal.

To definitely make a diagnosis of glaucoma, the *intraocular tension* as recorded by the tonometer must be higher than twenty-eight millimeters of mercury.

The only satisfactory method of determining the rate of progress and stage of

this disease is by measuring the *field of vision*. This procedure is also of great diagnostic aid, and no office should be too busy to record the visual field of a patient with glaucoma at regular intervals.

The findings to look for are Bjerrum's scotoma, Siedel's sign, the nasal or Ronné step, and contraction of the blue-green color fields, as well as concentric contraction for form.

Now, what can be done to rule out glaucoma in a patient who suspects she has it because she has a positive hereditary history, or in the patient who gives a suspicious history and presents a wide, deep physiological cup, yet has normal acuity, fields, and tension? If you dismiss them, you would certainly be chagrined if they returned in six months with an attack of acute glaucoma. In order to have this disease there must be a constitutional tendency, and by a series of provocative tests this tendency can often be brought to light. Tension studies for twenty-four hours are valuable.

Simple dilation of the pupil by twenty minutes in the dark room may increase the tension five to ten millimeters of mercury. (The tension should also be taken in the dark room.) If this is unsuccessful, the ingestion of three or four glasses of water plus the dark room may bring a response. If tension is still normal, the pupils should be well dilated with one-half per cent homatropine, and if the tension is not increased after thirty to forty-five minutes, we can be reasonably sure that glaucoma does not exist.

After establishing the diagnosis, the case will fall into one of six types. Our choice of therapy in chronic cases will be influenced by many factors. We all dislike suggesting operation at the first visit, and consequently a trial at medical management is practically always made. The efficiency of miotic therapy is dependent upon the degree of miosis obtained. One-half to three per cent pilocarpine should be

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tried, or the combination of eserine and pilocarpine. The prolonged use of eserine often leads to marked conjunctival reaction and ciliary cramp. One should impress the importance of frequent observations on the patient as well as the gravity of the disease. At each visit the tension and visual acuity are taken, and a visual field should be done every three to six months even if the tension seems controlled. In this connection the curve of ocular tension should be kept in mind, which tells us that the tension is highest usually from two to five A.M. and again from four to six P.M. If all of the tension readings are made in the morning office hours, it may easily always be normal and yet rapid destruction of tissue may be occurring at other times of the day. Perimetry or the twenty-four-hour tension study is the only means of detecting this.

Continued medical management should be reserved for the very elderly intelligent patient with only slight encroachment of his visual fields. Since glaucoma never permanently heals itself and since it is impossible to cure even the mildest cases with miotics, their use should never be regarded as more than a temporary measure. That surgical procedures, which are instituted late in the disease, are usually followed by unfavorable results is universally accepted.

All surgical procedures are directed toward a reduction of the intraocular tension to a normal range. Dr. Gradle classifies these operations into three groups:

- (1) Operations to restore the normal intraocular paths of drainage.
- (2) Operations to open new intraocular paths of drainage.
- (3) Operations to form paths for extraocular drainage.

The first group includes the corneal paracentesis and the iridectomy.

The second group, Heine's cyclodialysis operation.

The third group, Elliott's sclerocorneal trephine, LaGrange's sclerectomy, Holth's iridencleisis, Greenwood's modification of Holth's operation by also excising a piece of scleral tissue, and recently Sallman's

combination scleral trephining plus cyclodialysis.

There are dozens of other glaucoma operations. Many are modifications of the above, but none of these are very widely favored or performed. By careful selection of cases, these operations, I believe, will permanently cure fully eighty to ninety per cent of glaucoma if seen before extensive destruction has occurred.

I say this realizing that glaucoma was considered an incurable disease until 1860, when Von Graefe discovered that iridectomy healed many cases. Since that time our methods of diagnosis are much more accurate and the limitations of various forms of therapy are better realized.

The corneal paracentesis is the simplest and least traumatizing of all intraocular operations. Its use is very limited, it is true, but contrary to many surgeons who say it has no value and that it is not an operation, I have seen it performed in Ann Arbor many times and never with an unfavorable effect. It is indicated in acute glaucoma when the inflammatory state of the eye makes you reluctant to do any type of traumatizing surgery. It is much better to relieve the tension by paracentesis and allow the eye to temporarily quiet down than to treat the eye medically for longer than a day or two, losing retinal tissue, while hoping some of the inflammatory signs will disappear.

Intensive medical therapy may be tried for not longer than forty-eight hours. Fluids are restricted, magnesium sulphate given by mouth, hypertonic glucose by vein, and morphine administered if necessary. A solution of one per cent eserine and two per cent pilocarpine may be dropped in the eye every hour for five doses and then used four times a day. It is surprising how many cases of acute glaucoma promptly subside under this treatment. If unsuccessful, surgery is indicated.

Besides its value in acute glaucoma, paracentesis gives very beneficial results in many cases of so-called acute secondary glaucoma. Here it often acts as a means of unplugging the interspaces of the ligamentum pectinatum, exactly similar to the



linear extraction of lens cortex after a needling operation. This operation is usually done at the dependent portion of the anterior chamber and consequently, if it is ineffective, it does not interfere with later operations which are usually done above. With the popularizing of the operations of the third group, the use of the iridectomy operation is definitely waning. It is the consensus of opinion that this is justly so, especially when we consider the pathology of the disease. Intraocular tension is increased when aqueous cannot properly drain through the spaces in the interstices of the ligamentum pectinatum into the canal of Schlemm. The reasons for this decreased drainage are undoubtedly mechanical. The blockage is due to compression of the ligament by pressure of the iris from behind, by swelling in the fibres of the ligament, and by actual closure of the space due to contact between the anterior surface of the iris and the posterior surface of the cornea. The iridectomy will be successful only if fibrous adhesions have not formed to prevent opening of the atrium, which in turn would allow the interspaces to open to the canal of Schlemm. Consequently, the best results come during the first three or four days of acute inflammatory glaucoma, decreasing as the disease becomes chronic. Also in those rare cases of early glaucoma simplex and in secondary glaucoma which have an abnormally deep anterior chamber despite increased intraocular tension. It should be said here that the incision for iridectomy should be scleral and that peripheral iridectomy with removal of part of the iris root is preferable postoperatively to complete iridectomy.

Heine's cyclodialysis is the only operation widely used to establish new intraocular paths of drainage. The sclera is incised eight millimeters posterior to the limbus, spatula inserted, and a quadrant separation of the ciliary body from the sclera is performed. To be successful thirty to forty degrees of separation must have occurred. and the anterior chamber should be filled with blood from the shorn-off ciliary vessels. The use of this operation, as such, is con-

sidered to be very limited; namely, in cases of low tension without inflammation as is seen in early glaucoma simplex, and excellent results are also obtained in glaucoma following cataract extraction. It has the advantage of not having late infection as a bugbear.

The success of the extraocular drainage operations depends upon the formation of a permanent fistulous tract or safety valve between the anterior chamber and a visible or invisible subconjunctival bleb which spreads the aqueous out over a fairly large area under the conjunctiva. It is generally conceded that the permanence of this fistula is insured only by the inclusion of a piece of ectodermal tissue, namely, pigmented iris epithelium, between the lips of the scleral wound, which is mesodermal in origin and heals over rapidly.

The main objection to a fistulizing operation is the danger of late infection. This takes place in probably one to ten per cent of cases. By the use of uranin and other dyes it has been shown that it is possible for the aqueous to drain directly through very minute openings in the conjunctiva into the open conjunctival sac. Infection might very well then be retrograde. The conjunctival flap, turned down, should be carefully dissected so as to include as much episcleral tissue as possible, making capillary absorption as nearly the entire means of drainage as one can.

A fistulizing operation is indicated in cases in which one of the previously described procedures is known to be less effective, especially in buphthalmos, or juvenile glaucoma and in glaucoma simplex. The operation of choice is largely a matter of personal selection. I wish to say here that technically these operations are not as complex as they sound, but actually are extremely simple if a very few precautions are kept in mind, and that an ophthalmic surgeon should not hesitate to try any one of them after familiarizing himself with the technique. I say this because I believe that many surgeons feel safer doing an iridectomy because they are unfamiliar with

other procedures, and feel that they offer technical difficulties.

In conclusion and to summarize the management of glaucoma, I would like to present the following routine of therapy:

A. *Medical*.—Miotics are palliative and should not be continued if visual field changes show advancement.

B. *Surgical*.—

1. Acute inflammatory glaucoma.

a. Temporary paracentesis of cornea.

b. Iridectomy in early stages.

c. Fistulizing operation if later.

2. Chronic inflammatory glaucoma.

a. Fistulizing operation.

3. Glaucoma simplex.

a. Fistulizing operation.

b. Iridectomy if early with deep anterior chamber.

c. Cyclodialysis if early and tension not too excessive.

4. Juvenile glaucoma.

a. Fistulizing operation (preference is iridencleisis or Greenwood's modification).

5. Secondary glaucoma.

a. Paracentesis of cornea.

b. Iridectomy if chamber is deep.

c. Fistulizing operation.

6. Absolute glaucoma.

a. Enucleation.

## OBESITY AND MALNUTRITION\*

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THE TITLE of this paper is Obesity and Malnutrition, but we could not begin this discussion without a few words regarding nutrition in general.

The progress which has been made in the science of nutrition in the last few years has been exceedingly rapid. Newer information which the biochemist, physiologist, and nutritional experts have given us has greatly altered our opinion as to the cause of many diseases. They have shown us that many diseases which we have attempted to define on a basis of heredity, some toxic effect, or due to bacterial agents are in reality due to a nutritional disturbance. We now recognize that such diseases as peripheral neuritis, certain bone disturbances, arthritis, and many other diseases are influenced, if not caused, by a disturbance in the nutritional state. McLester<sup>1</sup> calls attention to the changes in the structural development that have taken place in the human being with an alteration in the diet. A great many workers have shown the significant changes in the experimental animal by varying certain elements which were necessary for growth. When we consider the complex changes that take place in the human body in growth and development, the many elements necessary for this growth, and the constant chemical and physiological changes which take place in the cell structure, we can but wonder if there are not a great many more conditions which might be due to a disturbance in nutrition. Our imagination leads us to believe that many diseases will in the future be explained on a deficiency basis, possibly the leukemias, other of the blood diseases than pernicious anemia, many bone disturbances, and possibly some of the nervous and mental disorders. The latter is suggested in view of the fact that psychiatrists often call attention to certain "types" and gross structural changes of the body in some of the diseases which they see. The poor con-

dition of the skin, long tapering fingers, vasomotor instability, and general poor nutritional state in dementia praecox is a classical example.

As we have mentioned above, we have observed great improvement in the general health, rate of growth, and development in the experimental animal as a result of information gained in the study of nutrition. In a large measure, the pediatricians have utilized this information to a greater advantage than the remainder of the profession. Today, among the better cared for, we see larger, healthier, and better nourished infants than were observed thirty-five years ago when feeding care was left to the ill-informed mother.

It is indeed unfortunate that a scientific application of nutritional knowledge has not been applied to those who do not come under the care of a pediatrician. The fault does not entirely lie with the public. They are bombarded from every angle by the commercial houses who offer some single food, drug, or appliance, promising health and vigor by the application of their method. The doctor, likewise, is the subject of much exploitation by the reputable food and drug houses. It is no wonder that through the great mass of advertising which is shouted from the housetops the quiet word of truth can hardly be heard. It is to be hoped that, by a slow process of evolution, scientific information can gradually filter down through the physician and into the hands of the public. It is the duty of the physician to properly apply and distribute to the public the information which we are gaining each day.

## OBESITY

The dangers of obesity increase with the excess of weight and advancing years. Life insurance figures show that for an excess of twenty per cent in weight, at the age of forty-four, we may expect an increase in mortality above the normal of thirty to forty per cent. A forty per cent increase in weight involves an eighty to one hundred

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per cent increase in the mortality rate. This great increase in weight predisposes to functional diseases of the heart and circulatory system, to an increase in blood pressure, a more likely development of diabetes, and poorer chances of recovery from operations and acute infectious diseases.

Obesity, which does not mean overweight, may be classified into two groups, first, endogenous, and second, exogenous. By the endogenous type we mean that which is due to some glandular disturbance, more particularly associated with a disturbance of the pituitary or ovarian gland, and possibly less frequently due to a disturbance of the thyroid gland. Exogenous obesity is that type due to the prolonged ingestion of an excess amount of food over the body requirement which has resulted in the deposition of fat. Recent work on the physiology of the pituitary gland has revealed that there is possibly some substance which is released from this gland that controls fat metabolism. Experimental evidence has shown that pituitrin, introduced into the ventricles, reduces the neutral fat in the blood.<sup>2</sup> There may be a specific principle of the anterior pituitary gland which controls the absorption and destruction of the circulating fat. This substance has been called "lipoitrin." Its action is thought to be directly on the nerve centers of the hypothalamus. Our recently acquired knowledge on the interrelationship between the pituitary and ovarian glands makes it easy for us to understand that a dysfunction of either one, or all, of the endocrine glands may cause a disturbance in fat metabolism.

Regardless of these and other influences, such as heredity, we must come to the conclusion that the person who is obese eats too much and exercises too little. There has been no satisfactory explanation why some individuals tend to store all available food in the form of fat, while other patients may eat enormous quantities and store up relatively no fat. But it is also true that, if the total caloric intake is below that of the energy requirement, the patient will lose weight. Again, there is no cause for obesity except the ingestion of too much food. The amount of food needed depends upon the

production of heat, the amount of exercise, and the basal metabolic rate. The basal metabolic rate in nearly all obese patients is normal. Most of the patients exercise too little and there is a diminished loss of heat because of the deposit of fat.

It is characteristic of human nature to seek a short cut to arrive at a given destination. Obese patients who wish to reduce their weight grasp at the hope offered by every drug, quack diet, or appliance. Some of these methods have virtue, but the great majority of them are unscientific in principle or have no virtue whatsoever and lead to an unhealthy state. The obese patient who wishes to reduce his weight should only follow the painfully hard road of eating less and exercising more with an additional caution that this should be done over a long period of time. In this way serious organic disease will be avoided.

The treatment of obesity should be adapted to each patient. A diet should be calculated for the patient which is low in the total number of calories, but which is designated to cause the loss of weight of not over two pounds a week. While a more rapid reduction in weight has been carried out without apparent harmful results in some instances, the average individual who continues his occupation is not safe in attempting to do so. The diet should be calculated to allow one to one and a half grams of protein per kilogram of body weight. Experimental evidence has shown that with an adequate amount of protein, even up to two grams per kilogram of body weight, patients who are reducing maintain an unusual amount of vigor and energy, and the nitrogen balance is maintained. It is very important that we have no disturbance in the nitrogen balance during prolonged weight reduction with the resulting secondary anemia, lowered vitality, and general debility.

The diet should also be calculated to include enough carbohydrate to prevent acidosis. As a general rule, eighty to one hundred and sixty grams of carbohydrate will be sufficient, depending upon the amount of excess weight carried and the rapidity of the loss which is desired. The

amount of fat which is to be included in the diet may be as low as possible to obtain, as a rule, about twenty-five to fifty grams. A certain amount of fat in the diet is necessary as it is included in the other foods such as meats. A small amount in the form of cream or butter may be added to insure the necessary fat soluble vitamins.

A careful selection of the type of food which makes up the above diet is important. The food selected should give a sense of well-being and satisfaction. Certain foods have a higher satiety value than others, and these should be suggested to the patient. Their diet should be selected with a regard to the vitamin and mineral elements. We have observed a few patients who have dieted indiscriminately over a long period of time who developed conditions which we attributed to a disregard of these principles. As a further precaution, some of the concentrated vitamin preparations which have no caloric value could be added.

As the patient gradually loses weight, the diet will necessarily have to be readjusted from time to time. As a rule, a patient's weight loss is not downward in a straight line but decreases in steps. This is due to the retention of fluids by the body. It is thought that water is being held in the tissue spaces which were previously occupied by fat. As the cells are broken down, this water is released, but this does not explain why this release should be retarded at one time and increased at others. We might add that the amount of water which an obese patient consumes will in no wise affect his ability to gain or lose weight.

The amount of exercise which an obese patient should take must be adapted in each case. Most of these patients are not in the habit of taking very much exercise. To avoid unnecessary strain and exertion and a possible impairment of the circulatory system, the introduction of exercise should be slow and gradual and of a type which will not cause excessive fatigue.

Massage has no therapeutic value in the treatment of obesity. It is true that vigorous massage will cause the disappearance of fat from a given area but only to be redistributed in other tissues. The same is true

of appliances which are recommended to be worn. Exercising belts and machines can only be recommended if they are sensibly applied. The use of drugs is emphatically contraindicated. Nearly all of these patients have a normal basal metabolic rate, and thyroid extract should not be given unless the basal metabolic rate has been studied and found to be decreased. It should then be given in only sufficient amounts to restore its rate to the normal level. Dinitrophenol, which has received great publicity in the last two years, is a poisonous drug and has resulted in some fatalities and a great many injurious effects. It is to be hoped that the use of the drug will be entirely discontinued as a medicinal agent. Purgatives in the treatment of obesity should not be used. There is no rationale to a patient overeating and following his meal with a purgative to eliminate it before it is absorbed. It would be far better if he ate his meal and removed it by the use of a stomach pump. He would at least save himself the price of his Epsom salts.

The unfortunate obese patient who finds that "everything that he eats turns to fat" will ask the discouraging question if he must always remain on a diet. Our answer is equally as discouraging if he wishes us to say that he can eat in excess of his weight requirements and remain thin. His efforts, however, will repay him in a sense of well-being, a longer life, and one in which his freedom of activities is increased. We would not promise him an improvement in his mental equipment, but many patients who have reduced their weight will give testimony of the improvement of their mental activity.

#### MALNUTRITION

In the consideration of malnutrition, we should sharply differentiate between leanness and inanition. The former is so frequently characteristic of a type often inherited and does not constitute a disease. Malnutrition represents a condition which is not compatible with perfect health. This state is not one necessarily characteristic of poor people. It is seen frequently among the class of people who are able to provide themselves with luxuries as well as neces-



sities. We see it so often in the young and middle-age females who have become worried or overworked, possibly debilitated from the care of children and the household. We are seeing it more frequently in the people from rural sections whose basic diet is very inadequate despite the fact that they have plenty of "fresh air, green vegetables, and sunshine." We see it in the better class of individuals who have practiced faulty habits of eating for years, living on an inadequate and impoverished diet and having lost all desire for food. The condition is likewise observed in institutions and other places where mass production of food is necessary.

It is important that we recognize these states of deficiency before they advance to the stage of pellagra or before the patient develops scurvy, nerve disorders, osteomalacia, secondary anemia, or arthritis. Burnett<sup>3</sup> found in the analysis of thirty arthritic patients that all had one or more defects in their diet or method of eating.

The difficulty is not due to a lack of any single factor in the diet. Many physicians, in their attempt to build up the weight of a patient who is undernourished, rely too greatly on some single item such as some cod liver oil preparation or milk and eggs. However virtuous these elements are, they do not constitute the proper treatment of such patients.

As a general rule, these patients are suffering from an insufficient number of calories, a deficiency in the protein content of the diet, and in many instances a vitamin deficiency. It is quite unusual for a diet to be deficient in one element alone.

The treatment of patients suffering from malnutrition is a great deal more difficult than the treatment of the obese patient. Education is the first principle, and many patients resist the installation of any new idea with unusual vigor. The patient must be taught the importance of a correct diet, how to select the proper foods, and frequently how to prepare them to the best advantage. His habits enormously influence his state of nutrition, and these must be rearranged if they are faulty. Unsound and unhealthy environmental influences

must be relieved in instances where these are responsible for loss of appetite or for poor habits. Prejudices toward certain foods are very common, and in the instances where such foods are a necessary part of the diet, this prejudice must be overcome. When these factors have been thoroughly considered with the patient, we may then discuss the diet in detail.

The protein content should be increased so that the patient is obtaining one to two grams of animal protein per kilogram of body weight in twenty-four hours. The total caloric intake should be from 3,000 to 5,000 calories a day, made up of adequate amounts of carbohydrate and fat. This large quantity of food should be selected with an idea as to the patient's ability to dispose of it. Generally speaking, it should be of low residue so that the patient is not overloaded. When divided into six meals a day, less difficulty is encountered, and the patient does not feel "stuffed." When a patient eats a diet such as that described above, there is rarely any danger of a deficiency of the vitamin or mineral content. As an adjunct, but not to take the place of any part of the diet, we may reinforce the vitamin content by some of the commercial preparations.

Adequate rest is almost as important as the correct selection of the diet. When these measures are carried out continuously, we have failed to observe a single patient who did not show an increase in weight, an improvement in the sense of well-being, and a relief from the many symptoms which originated as the result of a poor nutritional state.

#### CONCLUSION

We recognize the necessity of correct nutrition as a public health problem. We have observed in the human as well as in the animal the benefits of proper nutrition. We have observed the remarkable improvement in the care of our infants by the pediatrician. We well recognize the cultural and physical attainments of individuals whose environment and nutrition are correctly applied. It occurs to us that these observations and principles which we have learned should be applied in a more prac-



tical way. This application should be in the education of the general public. The average boy and girl in this part of the country does not finish a high school education, yet there is a constant attempt to saturate these children's minds with Latin, chemistry, and English literature. Since these children will shortly represent the heads of growing families, why have they not been taught, or why are they not now being taught, the essentials of diet and nutrition?

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#### DISCUSSION

DR. C. S. THOMAS (Nashville): Mr. President and Members of the Tennessee State Medical Association: We are indebted to Dr. Gotten for a remarkably complete summary of a rather broad and extremely important subject, certainly a growing field of which we should all be cognizant. We hope that Dr. Gotten's predictions prove accurate and that correctible metabolic disturbances will be found, as in Addisonian anemia, to explain other blood diseases as well as nervous and mental difficulties.

Certainly excessive weight in an individual over forty-five years of age predisposes to an increased mortality. Many writers have stressed the need for making allowance for heredity, type, bony framework, etc. Fisk, however, has concluded as follows: "Life insurance experience has shown that heavyweights, regardless of type and heredity, show an extra mortality." Age pays a very great role in this case, for statistics clearly show that to be underweight is a moderate disadvantage to the young adult but a slight asset to those over forty-five years of age. Overweight causes an increased mortality in those adults both above and below forty-five years of age, the effect being nearly three times as great in the older group. On the other hand, no such relationship holds for growing children.

The types of obesity associated with some glandular disturbance may be roughly divided into four groups: (1) thyroidal obesity, (2) pituitary obesity (Fröhlich's disease) often associated with structural changes within the pituitary gland or the tuber cinereum; (3) gonadal obesity, occurring after the menopause and less often in young castrates and occasionally in cases of primary ovarian failure; (4) special endocrine forms as adiposis dolorosa and those resulting from hyperfunctional states of the pancreas, suprarenal cortex, and thymus.

We have all observed that disturbances of all these glands may occur and yet the patient remain underweight. In order to reconcile these facts it is necessary to postulate a selective damage to certain cells of the various endocrine glands. Newburgh and his associates have shown distinctly that there is no difference in the metabolism per se of these individuals and normal adults. The same author has also shown that obese individuals oxidize body tissues in amounts precisely required to make up the caloric deficit of the diet.

The principle of treatment of these cases, as

well as those due to obvious overeating, is the same. Essentially the food must yield less energy than the individual dissipates so that the difference will be released by oxidation of body fat. The method of obtaining this result has been ably outlined by Dr. Gotten.

The problem of an optimum diet, even with the contributions of Sherman on the subject, is not wholly solved. That a large number of the American people are attempting to survive on an inadequate supply of the several foodstuffs required by the body is becoming more and more evident. Dr. Youmans, in the Vanderbilt Hospital outpatient department, has been able to recognize a relatively large number of cases of nutritional edema. The lack of vitamin C in the diet has repeatedly been emphasized by those interested in the gums and teeth. Using a photometer test for dark adaptation as a means of detecting vitamin A adequacy, Jeans and Zentmire found twenty-six per cent of a rural group and fifty-three per cent

of a village group of Iowa children presented evidence of vitamin A deficiency.

Since these studies demonstrate a serious lack of knowledge concerning such a vital subject, one cannot help agreeing with Dr. Gotten that a study of dietetics should be included in the ordinary grade school or high school curriculum.

The medical profession itself should be careful not to be guilty of causing cases of malnutrition while prescribing various diets. This is particularly true in allergic diseases where certain foods or groups of foods are totally eliminated from the diet for an indefinite period. In using the usual elimination diets, the patient should be warned carefully of the dangers of using the diet over a prolonged period even though relief from distressing symptoms is obtained.

DR. H. B. GOTTEN (closing): I have nothing further to add. I want to thank Dr. Thomas for his discussion.

# THE JOURNAL

OF THE

## TENNESSEE STATE MEDICAL ASSOCIATION

Devoted to the Interests of the Medical Profession of Tennessee  
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H. H. SHOULDERS, M.D., Editor and Secretary

FEBRUARY, 1937

## EDITORIAL

We take occasion to extend the sympathies of the medical profession of Tennessee to Dr. John B. Steele, now confined in the hospital as a result of multiple injuries received in an automobile accident.

Our information is that he is making satisfactory progress.

### DOCTORS AND THE SOCIAL SECURITY LAW

There has been some misunderstanding on the part of doctors as to what their duties are as employers under the Social Security Act. Some have contended that those with fewer than eight employees are not required to pay a tax. This is erroneous.

In order that the profession may be correctly informed on the subject Mr. Chas. M. McCabe, Collector of Internal Revenue, was requested to submit a statement for publication in the JOURNAL. The statement prepared by him is as follows:

"Any person who employs one or more persons is liable for the taxing provisions of the Social Security Act. He is required to deduct one per cent of each employees' salary and match that amount. These two taxes must be remitted monthly on Form SS-1. The first return will be for the month of January, 1937, and is due to be filed and paid not later than February 28. Regulations 91, relative to the Old Age Benefit tax on one or more, and Form SS-1 for filing monthly returns may be secured at the office of the Collector of Internal Revenue, Nashville, Tennessee, or at any

division office located at Memphis, Jackson, Chattanooga, Knoxville, or Johnson City."

### HAZARDS OF THE MEDICAL PRACTICE

Of the many hazards involved in medical practice there is one still outstanding, viz.: that of administering X-ray treatments.

Just a few years ago many doctors died as a result of failure to protect themselves properly against the effects of rays.

We are taking occasion to call attention to an abstract in this issue by Dr. Franklin B. Bogart of Chattanooga dealing with this subject.

### THE LEGISLATIVE PROGRAM OF THE TENNESSEE STATE MEDICAL ASSOCIATION

There are two major portions of the legislative program of the Tennessee State Medical Association this legislative year.

Portion number one is the preservation of the relationship between the organized medical profession and the State Department of Health, which consists of a board with power to make the regulations and policies of the department.

Portion number two consists of amendments to the medical practice act to bring it into harmony and correct alignment with progressive legislation on the subject.

Portion number one was seriously threatened by reason of an accident. As is generally known the reorganization bill sponsored by the late Governor Austin Peay provided for a Commissioner of Health appointed by the governor, and an Advisory Council of Health with advisory powers only. By accident these same provisions were incorporated in the new reorganization bill sponsored by Governor Gordon Browning. When the situation was explained to the governor he readily agreed to a change which would vest the powers of making regulations in the board appointed by the governor. Notwithstanding this fact, a great deal of effort was required on the part of the legislative committee to preserve this provision in the new act. Credit is due the governor, the Commissioner of Health, Dr. W. Carter Williams; chairman of the Board of Health, Dr. John



M. Lee; chairman of the Legislative Committee, Dr. L. W. Edwards; and others who cooperated.

It was readily seen by the governor that the Department of Health is entirely different from a department created to build roads or collect tax provided for by law. In fact, a great deal of power is vested in a commissioner of health, or a board of health, and the success or failure of the department is dependent, to a large extent, on the relations that obtain between the department and the organized profession of medicine.

The present legislation has been in effect two years. In that two years the whole attitude of the profession and the department has undergone a change for the better. It would have been tragic to have changed this system of public health administration in Tennessee at this time.

The amendments to the Medical Practice Act seek to accomplish two important changes. First, the principle of the basic science law which means that all practitioners of the healing art are required to demonstrate their knowledge of the five basic sciences by the same test or examination. When they demonstrate their knowledge of these basic sciences they are then permitted to go before their respective boards to determine their knowledge of the special subjects pertaining to their respective practices.

Secondly, the amendments provide for a definite procedure by which a license may be revoked.

The Treasury Department in Washington has insisted that state boards of examiners revoke the license of doctors found guilty of violating the narcotic law. Up to now there has been some question as to whether the board had the proper power to revoke licenses. This amendment is intended to correct any disabilities in this regard.

It must be understood by the public and the profession that the organized profession is just as anxious to clean up its dirty linen as anyone else. We as an organized profession hold no brief for those who prostitute the profession. Doctors are given

ample latitude to use narcotics for the relief of human suffering, but that does not carry with it a license to conduct a racket in the dispensing of narcotics.

The Legislative Committee is always hard worked during a legislative session. One who has never served in such a capacity has no idea of the amount of work that is required. The committee deserves the hearty cooperation of the doctors. Doctors could discuss these subjects with their representatives and senators on week ends and aid the committee tremendously because a representative is strongly disposed to listen to home folks and many of them are prejudiced against a Nashville doctor to start with.

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#### A STATEMENT OF THE ACTIVITIES OF THE POSTGRADUATE COMMITTEE

It will be of interest to doctors of Tennessee to know something about the instructor in obstetrics selected by your postgraduate committee. Naturally the first great need was to select a physician who is a real teacher. The next requirement was, of course, that he be fully informed as to modern methods in clinical obstetrics. Such a combination is not easy to find, but the committee believes, and the opinion of the doctors enrolled in the first circuit verifies this, that Dr. Frank E. Whitacre, the instructor, has fulfilled these requirements.

Dr. Whitacre was born in the state of Wisconsin in October, 1897. At an early age, with his parents he migrated to Hot Springs, Arkansas. His preliminary education, however, was received in the state of Iowa and in the public schools of that state.

It was at the University of Iowa that he received his A.B. degree and also his M. degree. Following is a concise statement of his collegiate and clinical training:

Dr. Frank E. Whitacre graduated from the Medical School at the University of Iowa in 1926;

One year rotating internship, University of Illinois Hospitals;

Resident in Obstetrics and Gynecology, University of Illinois Hospitals, Chicago, 1928;

Resident in Obstetrics in Chicago Lying-in Hospital, 1929-1930;

Resident in Gynecology, University of Chicago clinics, 1931;

Assistant in Obstetrics and Gynecology, University of Leipzig, Women's Hospital, Germany, 1932;

Instructor in Obstetrics and in Postgraduate Teaching, University of Chicago, 1933 and 1934 (promoted to rank of Assistant Professor);

Assistant Professor, the Institute of Pathology, University of Berlin, Germany, 1935, and to July, 1936, (this teaching was chiefly Obstetrics and Gynecologic Pathology);

At present, Assistant Professor in Obstetrics, University of Chicago, teaching undergraduates and postgraduates, and is on leave of absence to give this course.

Dr. Whitacre is married and the proud father of a son. It is reported that Mrs. Whitacre is so interested that she has declared her intentions of coming to Tennessee and traveling over several of the circuits with Dr. Whitacre for pure interest in the work which he is trying to do. The committee feels itself fortunate indeed in securing so well qualified an instructor and who is giving so many practical points in diagnosis and treatment for Tennessee doctors. Surely this program justifies any physician who is eligible in paying the dues and becoming a consistent member of the state medical association in view of the fact that the state medical association is willing to return to its members a large part of its funds for a member's own professional improvement.

In casting about for someone to promote and organize the postgraduate courses in obstetrics, the committee made an attempt to find someone with previous experience. After careful deliberation, they selected Mr. L. W. Kibler, a man with the necessary cultural background and many years' experience in educational and field work.

Mr. Kibler was born in the state of Ohio in January, 1889. His early life was spent in Ohio, Missouri, Kansas, and Oklahoma, where he received his elementary educa-

tion. It was at the University of Oklahoma that he received both his A.B. and M.A. degrees.

Below is an outline of his experience:

Assistant Registrar at the University of Oklahoma, September, 1916, to August, 1917;

U. S. Air Service, World War, commanding 162nd Aerial Squadron, August, 1917, to February, 1919;

Superintendent Schools, Holdenville, Oklahoma, spring, 1919, to autumn, 1920;

Manager, U. S. Veterans Bureau for state of Oklahoma, Oklahoma City, autumn, 1920, to autumn, 1925;

Director, postgraduate medical study, University Extension Division, autumn, 1926, to February, 1934;

Field Consultant, Oklahoma Municipal League, February, 1934, to December, 1936.

Mr. Kibler is married and has two sons, aged twelve and seventeen. As soon as the boys' high school year is completed, the family plan to make Memphis their home.

Mr. Kibler is an able organizer. He possesses the happy combination of a keen mind and a sympathetic personality. And since results speak for themselves, the committee feels that it has shown rare judgment in the selection of Mr. Kibler as Field Director for the postgraduate instruction in obstetrics. Members of the Tennessee State Medical Association will be glad to know that ninety-three doctors have been enrolled in the first circuit, which has as its five centers Covington, Brownsville, Jackson, Selmer, and Bolivar. Many nurses also, assisting the physicians in obstetrical work, are attending the courses. Including both physicians and nurses, attendance during the first two weeks has averaged 131 for the circuit.

## DEATHS

Dr. W. M. Johnson, Sparta; University of the South, Medical Department, Sewanee, 1900; aged 58; died February 2, after a week's illness of pneumonia.

## RESOLUTIONS

On January 3, 1937, the Blount County Medical Society lost one of its most valued members and a past president in the death of Dr. Robert Lee Hyder.

Dr. Hyder graduated from the Tennessee Medical College in 1901. He located first in North Carolina and then went to Isabella, Tennessee, remaining there for twelve years. He then came to Maryville twenty years ago.

Dr. Hyder married Miss Myrtle Roberts on June 28, 1905, and to them was born a son and daughter.

The passing of Dr. Hyder removes from our county one of our most eminent practitioners, and deprives the medical profession of one of its most valued members. His many friends have every reason to mourn his loss, and will receive the sad news of his death with great sorrow.

Those of us who have had the opportunity to know Dr. Hyder learned to love and admire him, and were impressed with his standards as a man, his wisdom, his sincerity, his noble sentiments, and his skill as a physician.

In recognition of these noble attributes the Blount County Medical Society extends to the family and relatives of Dr. Hyder its deep sympathy in their loss.

We will miss his counsel, his helpful assistance and above all his careful conscientious work as a physician.

Be It Therefore Resolved, that a copy of these resolutions be sent to the family of our deceased brother, also copies to the local papers for publication, and that a copy be spread on the minutes of this society.

*Committee,*

J. A. McCULLOCH, M.D.

G. D. LEQUIRE, M.D.

W. B. LOVINGOOD, M.D.

W. C. CROWDER, M.D., *Sec.-Treas.*

*Blount County Medical Society.*

## NEWS NOTES AND COMMENTS

The Southeastern Surgical Congress announces the Eighth Annual Assembly of the Congress to be held in Louisville, March 8, 9, 10, 1937, with headquarters at the Brown Hotel.

For information write or wire Dr. B. T. Beasley, secretary-treasurer, 701 Hurt Building, Atlanta, Georgia.

## WOMAN'S AUXILIARY

President-----Mrs. Theodore Morford  
Nashville

President-elect-----Mrs. W. T. Black  
Memphis

Press and Publicity-----Mrs. Oscar Nelson  
Nashville

Auxiliary to Knoxville County Medical Society is anticipating with great pleasure entertaining the ladies during the state meeting held in Knoxville, April 13, 14, and 15.

Mrs. Robert Patterson, chairman of entertainment, has made tentative plans which sound very intriguing. They include a reception, luncheon, and formal dinner; also a trip to Norris Dam and a drive through the mountains, if time and weather permit.

Mrs. Morford is arranging the pre-convention board meeting for Tuesday afternoon, and the regular open meeting Wednesday morning.

For a more specific schedule of events, read next month's journal.

A meeting of the Tennessee Executive Board will be held on February 8, in Nashville. In addition to the members from Middle Tennessee, those expecting to attend are Mrs. W. T. Black, president-elect from Memphis, and Mrs. H. E. Christenberry; Mrs. W. S. Nash; Mrs. W. W. Potter; Mrs. D. W. Peters and Mrs. G. A. Williamson from East Tennessee.

### SHELBY COUNTY

The Woman's Auxiliary to the Memphis and Shelby County Medical Society held its



December meeting on the sixteenth of that month, at the University Center. More than thirty-five members were present to hear a very fine paper on "Jane Todd Crawford" read by Mrs. John Shea. Mrs. Otis Warr served as chairman and Mrs. Tom Mitchell and Mrs. Edward Thompson as co-chairmen of the delightful luncheon which followed the meeting.

#### RUTHERFORD AND CANNON COUNTIES

The January meeting of the Woman's Auxiliary to Rutherford County and Stones River Academy of Medicine was held at the home of Mrs. A. J. Jamison. Continuing the study of the general theme "Contributions Women Have Made to Medicine," Mrs. John Cason read a most interesting paper on the life and work of Madame Curie, sometimes called "the world's greatest scientist." Mrs. Matt Murfree, president of the Rutherford County Auxiliary, presided at the business session.

#### BLOUNT COUNTY

The Woman's Auxiliary to the Blount County Medical Society holds its regular meeting on the fourth Thursday evening of each month. While the membership of this auxiliary is small it is compensated for in the interest and enthusiasm of the members. The auxiliary held a special supper meeting on Tuesday, February 2, to make plans for the year. Two of the local physicians enjoyed the evening with the auxiliary members and two prospective members were also present, which seems a good omen for a growing membership.

#### DAVIDSON COUNTY

The Woman's Auxiliary to the Nashville Academy of Medicine and Davidson County Medical Society met on January 8 at 10:30 o'clock at the Y.W.C.A. The auxiliary was privileged to hear a talk on "Certain Health Problems in Nashville" given by Dr. William R. Cate, who is a member of the local Advisory Council. The auxiliary is sponsoring a Girl Scout troop, and the following members are in charge: Mrs. James A. Kirtley captains the troop; Mrs. Earl C.

Lowrey is chairman of the committee; and Mrs. Travis Martin, Mrs. James Hayes, Mrs. Thomas Frist, and Mrs. Elkin Rippey serve on the committee.

#### KNOX COUNTY

The auxiliary of the Knox County Medical Society had a Valentine luncheon at the home of Mrs. H. T. McClain; co-hostesses were Mrs. Jesse Hill, Mrs. R. J. Hamilton, Mrs. M. E. Haun, Mrs. Victor Hill, Mrs. John Moore, and Mrs. J. F. Morrow.

Mrs. Robert Patterson gave an account of the work for crippled children in Knoxville.

Mrs. H. C. Long, who was in charge of the program, read a paper on social work in Knoxville.

A group of pupils from Brownlow school gave a health play taken from Hygeia. An invitation was read from the members of the Medical Society to the auxiliary to a dinner on February 23.

#### MIDDLE TENNESSEE BOARD

A meeting of the Middle Tennessee Board of the Tennessee State Auxiliary was held at the home of Mrs. W. R. Cate in Nashville on January 22. Prior to the meeting Mrs. Cate entertained the board at luncheon. Interesting plans were discussed for the state meeting which will be held in Knoxville in April. Nine members of the Middle Tennessee Board were present including, besides Mrs. Cate, Mrs. Matt Murfree, Mrs. J. A. Scott, both of Murfreesboro; Mrs. Theodore Morford, Mrs. T. G. Pollard, Mrs. B. F. Byrd, Mrs. W. Frank Fessey, Mrs. W. W. Wilkerson, Jr., and Mrs. O. G. Nelson.

### MEDICAL SOCIETIES

#### *Anderson County:*

The Anderson County Medical Society met Monday night, February 1 at 7:30 p.m. at Health Units office in Clinton. The meeting was called to order by Vice-President Dr. Sam Taylor.

The minutes of past meeting were read

in full by Secretary Dr. Hall and adopted as read. The society went on record as being unfavorable to the Tucker Bill recently introduced into the legislature, which bill would abolish the office of County Physician in counties of state, where there exists a health unit. This bill if passed would put health units into the active practice of medicine.

Papers were read on "Shock," by Dr. J. M. Cox and Dr. W. B. Barton.

Discussion was opened by Dr. Jennings and all members participated actively. The following members were present, Drs. Bal-lou, Jennings, Rule, Huff, Hall, DuBard, Cox, Barton, and Taylor.

J. S. HALL, *Secretary*.

W. B. BARTON, *Corresponding Sec.*

#### *Campbell County:*

The Campbell County Medical Society met at the Glanmorgan Hotel in Jellico on January 28. Dr. G. B. Brown, of Jellico, read a paper discussing in a very interesting and thorough manner the "Differential Diagnosis of Gall-Bladder Disease." After the paper was read discussion was opened by Dr. A. L. Lawson.

It was deemed advisable for the secretary to write to the Roche Chemical Company stating that the Campbell County Society endorsed the program of the pharmaceutical houses to donate toward a fund being raised to give the American Medical Association paid time on the radio on a national hookup.

A new member was taken into the society, Dr. R. C. Pryse, of Clinchmore, Tennessee.

(Signed) R. J. BUCKMAN, *Secretary*.

#### *Davidson County:*

January 19 — "Surgery in Patients of Advanced Age," by Dr. Barney Brooks. Discussion opened by Dr. Tinsley Harrison.

January 26—"Complications—Some Conditions Not Infrequently Overlooked," by Dr. W. H. Witt. Discussion opened by Dr. J. O. Manier.

February 2—"Observations on Seventy-Eight Cases of Pernicious Anemia with

Special Reference to Weight Changes," by Dr. Edgar Jones. Discussion opened by Drs. Hugh Morgan and W. R. Cate.

Case Report—"Twisted Omentum," by Dr. C. S. McMurray.

February 9—"Boric Acid," by Dr. Howard King. Discussion opened by Dr. C. M. Hamilton.

#### *Giles County:*

A meeting was held in Pulaski January 28.

Dr. Joe B. Wright, Lynnvile, read a paper on "Congenital Syphilis." There was a discussion of the federal antisiphilis program.

The postgraduate course in obstetrics was discussed and fifteen doctors signified their intention of enrolling. Dr. J. U. Speer was appointed clinic chairman.

#### *Greene County:*

The regular monthly meeting of the Greene County Medical Society was held February 2.

Dr. J. B. Bell presented a timely paper on "Influenza," which was followed by general discussion.

Dr. I. E. Phillips presented a paper on "Allergy."

The following members were present: Drs. J. B. Bell, I. E. Phillips, L. E. Dyer, H. W. Fox, L. E. Coolidge, J. T. Campbell, W. T. Mathes, M. A. Blanton, C. P. Fox, and C. P. Fox, Jr.

#### *Hamilton County:*

The following papers are scheduled to be read before the Hamilton County Medical Society:

February 18—"Mental Hygiene," by Dr. J. C. Eldridge. "Blood Supply, Disturbances in Nutrition and Pyogenic Infection of Bone (lantern slides)," by Dr. Gene H. Kistler.

February 25 — "Caesarian Section" (a motion picture), by Dr. E. F. Buchner, Jr. "Back Disability," by H. M. Ausherman.

March 4—"X-ray in Dental Foci," by Dr. E. M. Delay. "Tuberculosis Up-to-date," by Dr. W. E. Bryan.

(Continued on page 75)

## COMMITTEES

The following is a list of the standing committees of the Tennessee State Medical Association provided for in the constitution and by-laws and appointed by the proper authority, together with some special committees appointed under the authority of a resolution by the House of Delegates.

Some of the committees are appointed for a definite period. In such instances the appointment of the committeeman expires with the meeting of the House of Delegates in the year stated opposite his name.

### COMMITTEE ON SCIENTIFIC WORK

H. H. Shoulders, Chairman, Nashville.  
A. F. Cooper, Memphis.  
Frank Harris, Chattanooga.  
A. H. Lancaster, Knoxville.

### COMMITTEE ON PUBLIC POLICY AND LEGISLATION

L. W. Edwards, Chairman, Nashville (1939).  
E. W. Cocke, Bolivar (1941).  
Battle Malone, Memphis (1940).  
Tom Barry, Knoxville (1938).  
T. R. Ray, Shelbyville (1937).

### LIAISON COMMITTEE

W. C. Dixon, Chairman, Nashville (1941).  
W. P. Wood, Knoxville (1940).  
Hiram A. Laws, Chattanooga (1939).  
Tom Mitchell, Memphis (1938).  
J. L. Raulston, Knoxville (1937).

### STATE TUBERCULOSIS HOSPITAL COMMISSION

W. S. Rude, Chairman, Ridgetop.  
O. N. Bryan, Nashville.  
C. M. Oberschmidt, Memphis.  
J. L. Hamilton, Chattanooga.

### HOSPITAL COMMITTEE

D. R. Pickens, Chairman, Nashville.  
E. H. Baird, Dyersburg.  
H. Quiggs Fletcher, Chattanooga.  
Kyle Copenhaver, Knoxville.  
H. B. Everett, Memphis.  
Lee Gibson, Johnson City.

### COMMITTEE ON INSURANCE

A. F. Cooper, Chairman, Memphis.  
C. M. Hamilton, Nashville.  
S. R. Miller, Knoxville.

### COMMITTEE ON MEDICAL DEFENSE

S. R. Miller, Chairman, Knoxville.  
H. B. Everett, Memphis.  
H. M. Tigert, Nashville.

### ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

W. P. Wood, Chairman, Knoxville.  
W. M. Searight, Memphis.  
L. W. Edwards, Nashville.

### COMMITTEE ON EDUCATION

O. S. Warr, Chairman, Memphis (1938).  
R. B. Wood, Knoxville (1938).  
W. G. Kennon, Nashville (1937).  
J. Marsh Frere, Chattanooga (1937).  
W. O. Baird, Henderson (1939).  
J. M. Lee, Nashville (1939).

The following committees are expected to serve under the supervision of the Committee on Education:

#### (A) COMMITTEE ON MATERNAL WELFARE

J. R. Reinberger, Chairman, Memphis.  
M. S. Lewis, Nashville.  
H. B. Hewitt, Chattanooga.  
Andrew Smith, Knoxville.

#### (B) COMMITTEE ON CHILD WELFARE

W. D. Anderson, Chairman, Chattanooga.  
Oliver Hill, Knoxville.  
H. G. Bradley, Nashville.  
W. L. Rucks, Memphis.

#### (C) CANCER COMMITTEE

Ralph Monger, Chairman, Knoxville.  
S. J. Sullivan, Cleveland.  
Howard King, Nashville.  
H. S. Shoulders, Nashville.  
J. W. McClaran, Jackson.  
Frank Smythe, Memphis.

#### (D) COMMITTEE ON PHYSICAL THERAPY

A. H. Meyer, Chairman, Memphis.  
W. E. Van Order, Chattanooga.  
J. F. Hamilton, Memphis.  
R. W. Billington, Nashville.  
J. P. Gilbert, Nashville.

#### (E) COMMITTEE ON POSTGRADUATE INSTRUCTION IN OBSTETRICS

Jas. R. Reinberger, Chairman, Memphis.  
Franklin B. Bogart, Chattanooga.  
O. W. Hyman, Memphis.  
John M. Lee, Nashville.  
J. O. Manier, Nashville.  
Otis S. Warr, Memphis.  
John B. Youmans, Nashville.



## LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. W. L. Williamson, 915 Madison Avenue, Memphis.  
 Vice President for West Tennessee—Dr. J. E. Powers, Jackson.  
 Vice President for Middle Tennessee—Dr. J. O. Walker, Franklin.  
 Vice President for East Tennessee—Dr. Lee K. Gibson, Johnson City.  
 Secretary-Editor—Dr. H. H. Shoulders.  
 Assistant Secretary-Editor—Dr. W. M. Hardy.

## TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville.  
 Dr. A. F. Cooper, Goodwyn Institute Building, Memphis.  
 Dr. E. R. Zemp, Walnut Street, Knoxville.  
 Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.  
 Dr. John B. Steele, Volunteer Building, Chattanooga.

## COUNCILORS

First District—Dr. L. E. Dyer, Greenville.  
 Second District—Dr. S. R. Miller, Knoxville.

Third District—Dr. Hiram A. Laws, Jr., Chattanooga.  
 Fourth District—Dr. J. T. Moore, Algood.  
 Fifth District—Dr. John W. Sutton, Petersburg.  
 Sixth District—Dr. L. W. Edwards, Nashville.  
 Seventh District—Dr. C. D. Walton, Mt. Pleasant.  
 Eighth District—Dr. J. R. Thompson, Jackson.  
 Ninth District—Dr. E. H. Baird, Dyersburg.  
 Tenth District—Dr. W. B. Burns, Memphis.  
 Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

## Delegates to the American Medical Association—

Dr. E. G. Wood, Knoxville; East Tennessee.  
 Dr. H. H. Shoulders, Nashville; Middle Tennessee.  
 Dr. H. B. Everett, Memphis; West Tennessee.

## Alternates—

Dr. E. T. Newell, Chattanooga; East Tennessee.  
 Dr. J. O. Manier, Nashville; Middle Tennessee.  
 Dr. E. C. Ellett, Memphis; West Tennessee.

## OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	VICE PRESIDENT	SECRETARY-TREASURER
Anderson	H. D. Hicks, Clinton	J. Sam Taylor, Clinton	I. S. Hall, Clinton
Bedford	James W. Reed, Belfast	James N. Burch, Shelbyville	W. B. Barton, Briceville, Assoc. Sec.
Blount	H. A. Calloway, Maryville	G. D. Lequire, Maryville	W. H. Avery, Shelbyville
Bradley	J. Lake McClary, Cleveland	W. C. Stansberry, Cleveland	W. C. Crowder, Maryville
Campbell	G. B. Brown, Jellico	R. W. Lewis, Westbourne	C. H. Taylor, Cleveland
Carroll	E. W. Hillsman, Trezevant	J. B. Shoun, Elizabethton	R. I. Buckman, LaFollette
Carter	E. T. Pearson, Elizabethton		J. H. Williams, McKenzie
Chester, Henderson, and Decatur	C. H. Johnson, Lexington		E. L. Caudell, Elizabethton
Coke	Drew A. Mims, Newport	Chas. Ruble, Newport	L. C. Smith, Henderson
Cumberland	E. W. Mitchell, Crossville		J. E. Hampton, Newport
Davidson	Jack Witherspoon, Nashville	T. D. McKinney, Nashville	V. L. Lewis, Crossville
Dickson	L. F. Loggin, Charlotte		J. P. Gilbert, Nashville
Dyer, Lake, Crockett	J. P. Baird, Dyersburg	B. G. Marr, Dyersburg (Dyer)	R. P. Beasley, Dickson
		W. L. Sumner, Ridgely (Lake)	C. L. Denton, Dyersburg
		J. O. McKinney, Friendship (Crockett)	
Fayette-Hardeman	L. D. McAuley, Oakland	Leon Pope, Grand Junction	A. Richards, Bolivar
Fentress	C. A. Collins, Wilder	A. H. Crouch, Forbus	J. P. Sloan, Jamestown
Franklin	W. F. Smith, Decherd	A. P. Smith, Winchester	John M. Hardy, Sewanee
Gibson	L. H. Montgomery, Trenton	H. P. Clemmer, Milan	F. L. Roberts, Trenton
Giles	J. G. Waldrop, Lewisburg	A. W. Deane, Pulaski	F. Booth, Pulaski
Greene	W. T. Matthes, Greeneville	M. A. Blanton, Mosheim	I. F. Phillips, Greeneville
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	P. L. Brock, Morristown	W. E. Howell, Morristown	J. F. Campbell, Morristown
Hamilton	E. A. Gilbert, Chattanooga	A. M. Patterson, Chattanooga	J. Marsh Frere, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	Otis Whitlow, Savannah	J. V. Hughes, Savannah (Hardin)	O. H. Williams, Savannah
		V. H. Crowder, Lawrenceburg (Lawrence)	
		Paul Wylie, Hohenwald (Lewis)	
		J. W. Frost, Linden (Perry)	
		J. T. Keeton, Clifton (Wayne)	
Haywood	F. P. Hess, Bells	John P. Shearon, Gates	Roy M. Lanier, Brownsville
Henry	A. T. Paschall, Puryear	Elroy Scruggs, Paris	R. Graham Fish, Paris
Hickman	L. F. Pritchard, Only	C. V. Stephenson, Centerville	W. K. Edwards, Centerville
Humphreys			W. W. Slayden, Waverly
Jackson	J. D. Quarles, Whitleyville	R. C. Gaw, Gainesboro	F. B. Clark, Gainesboro
Knox	Henry Clay Long, Knoxville	A. R. Garrison, Byington	Jesse C. Hill, Knoxville
Lauderdale	J. R. Lewis, Ripley	J. H. Nunn, Ripley	Thos. E. Miller, Ripley
Lincoln	R. E. McCown, Fayetteville	R. T. Odum, Fayetteville	M. F. Brown, Fayetteville
Macon	D. D. Howser, Lafayette	P. East, Lafayette	J. Y. Freeman, Lafayette
Madison	J. C. Pierce, Mercer	John E. Powers, Jackson	S. M. Herron, Jackson
Maury	D. B. Andrews, Columbia	O. C. Fowler, Spring Hill	C. D. Walton, Mt. Pleasant
		H. C. Busby, Columbia	
McMinn	Boyd McClary, Etowah		D. F. Seay, Englewood
McNairy	John R. Smith, Selmer	G. B. Curry, Selmer	H. C. Sanders, Selmer
Monroe	R. C. Kimbrough, Madisonville		E. P. Bowerman, Madisonville
Montgomery	F. A. Martin, Cumberland City	R. M. Workman, Clarksville	Philip L. Lyle, Clarksville
Obion	M. T. Tipton, Union City	F. B. Kimzey, Union City	W. B. Harrison, Union City
Overton			A. B. Qualls, Livingston
Polk	A. W. Lewis, Copperhill	H. P. Hyde, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	R. L. Witherington, Cookeville	Thurman Shipley, Cookeville
Roane	J. C. Fly, Kingston	L. A. Killeffer, Harriman	W. W. Hill, Harriman
Robertson	E. W. Adair, Springfield	W. P. Stone, Springfield	J. E. Wilkinson, Springfield
Rutherford	T. J. Bratton, Woodbury	John F. Cason, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	Pinney Phillips, Robbins	Milford Thompson, Oneida
Sevier	R. J. Ingle, Sevierville	C. P. Wilson, Sevierville	R. C. Kash, Sevierville
Shelby	O. S. Warr, Memphis	M. W. Searight, Memphis	A. F. Cooper, Memphis, Secretary
	J. J. Hobson, Memphis, President-Elect		J. H. Francis, Memphis, Treasurer
Smith	W. B. Dalton, Gordonsville	W. F. Boze, Carthage	Thayer S. Wilson, Gordonsville
Sullivan, Johnson	W. H. Reed, Kingsport	D. D. Vance, Bristol (Sullivan)	T. R. Bowers, Bristol
		R. O. Glenn, Mountain City (Johnson)	
Sumner	C. D. Giles, Gallatin	L. A. Absher, Portland	Harold Kelso, Livingston
Tipton	A. J. Roby, Covington	L. J. Lindsey, Covington	H. C. Currie, Covington
Warren	John S. Harris, McMinnville	E. L. Mooneyham, Rock Island	John T. Mason, McMinnville
Washington	E. T. Brading, Johnson City	G. J. Budd, Johnson City	Carroll H. Long, Johnson City
Weakley	J. E. Taylor, Dresden	T. W. Jones, Martin	P. W. Wilson, Dresden
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, Route 3	A. F. Richards, Sparta
Williamson	J. Knox Galloway, Franklin	W. F. Roth, Jr., Franklin	K. S. Howlett, Franklin
Wilson	M. H. Wells, Watertown	R. N. Buchanan, Jr., Lebanon	R. B. Gaston, Lebanon

March 11—"The Diagnosis and Treatment of Chronic Cystic, Eroded Cervicitis and Hyperplastic Endometritis, Menopausal Menorrhagia; Report of 550 cases; slides," by Dr. Edward T. Newell.

"Progress of Cancer Research," by Dr. S. S. Marchbanks.

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*Hardin, Lawrence, Lewis, Perry, and Wayne Counties:*

A meeting of the Five-County Medical Society was held in Lawrenceburg on January 26. The following papers were read:

"Clinical Types of Goiter," by Dr. W. D. Haggard, Nashville.

"Traumatic Brain Injury," by Dr. W. Frank Fessey, Nashville.

Mr. L. B. Kibler, Field Director of the Postgraduate Instruction in Obstetrics, was present and in a short talk explained his program.

The next meeting will be held in Hohenwald, February 23.

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*Knox County:*

January 12—"Childhood Tuberculosis," by Dr. Rufus Smith. Discussion led by Drs. Joe T. Smith and Jack Chesney.

January 19—"A Short Resume of a Few Paranoiac Cases," by Dr. Jesse C. Hill.

January 26—"Chronic Hydrocephalus," by Dr. Oliver Hill. Discussion led by Drs. Eblen, R. B. Wood, Joe T. Smith, and Carmichael.

February 2—"Prostatism," by Dr. G. A. Williamson. Discussion led by Drs. Smoot and Barry.

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*Lincoln County:*

A meeting of the Lincoln County Medical Society was held January 14 and the following officers were elected for the ensuing year:

Dr. R. E. McCown, president; Dr. R. T. Odom, vice-president; Dr. M. F. Brown, secretary-treasurer; Dr. W. S. Joplin, delegate; Dr. J. M. McWilliams, elected to the advisory board for the next three years.

Dr. H. K. Alexander read an interesting paper on "Thyroid Disturbances."

*Sullivan-Johnson Counties:*

On January 6 a meeting was held in Bristol. The following papers were read:

"Vertebral Injuries," by Dr. J. L. Hanks.

"Coronary Artery Disease with Unusual and Dramatic Sequelae," by Dr. D. D. Vance. Discussion opened by Drs. E. H. Hearst and T. B. Yancy.

On February 3, the following papers were presented:

"The Establishment of Urological Diagnosis," by Dr. W. B. Payne. Discussion opened by Drs. N. H. Copenhaver and F. M. Duckwall.

"The Classification and Treatment of Anemias," by Dr. Guy Richardson. Discussion opened by Drs. W. K. Vance and M. D. Massengill.

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*Washington County:*

A meeting was held February 4 in Johnson City. Dr. P. E. Parker's subject was "Ectopic Pregnancy, with Report of Case of Fifteen Months' Pregnancy." Discussion by Drs. Budd and Friberg.

"Case Report," by Dr. H. L. Monroe. Discussion opened by Dr. L. K. Gibson.

## OTHER MEDICAL SOCIETIES

### MID-SOUTH POSTGRADUATE MEDICAL ASSEMBLY

Because of flood conditions which have thrown a tremendous burden upon so many physicians in this territory, and which have disrupted traffic lines to so great an extent, the Program Committee feels cancellation of the meeting of the Mid-South Postgraduate Medical Assembly in Memphis February 16-19 is imperative. You are hereby so notified and you are invited to attend the meeting next year.

(Signed) A. F. COOPER, M.D., *Secretary*.

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### VANDERBILT MEDICAL SOCIETY

December 4, 1936

1. Case Report—"A Case of Ménière's Disease Treated by Intracranial Section of

the Auditory Nerve," by Dr. Edward F. Parker, Jr.

The patient is a fifty-three-year-old white woman, with history of vertigo, tinnitus, and vomiting for past twenty-six years. Tinnitus in left ear since first attack. For past fifteen years, impairment of hearing on left. Neurological examination: hearing markedly impaired on left. BC greater than AC, bilateral. Weber's referred to right. Audiograms: bilateral middle ear deafness, marked on left. Barany's tests: bilateral partial loss of vestibular function, more on left. Spinal fluid normal. At operation, left auditory nerve sectioned intracranially. Rapid recovery from operation. Since operation, now ten weeks, attacks have ceased. Tinnitus has ceased, and hearing consequently improved on right subjectively.

Case discussed by Drs. Pilcher and Thomas.

2. "A Study of One Thousand Consecutive Cases Operated Upon in the Vanderbilt University Hospital for Acute Appendicitis," by Drs. James A. Kirtley, Jr., and Rollin A. Daniel, Jr.

An analysis of 1,000 consecutive cases of acute appendicitis is presented. These patients were admitted to Vanderbilt University Hospital between 1925 and 1935, inclusive. The mortality rate for the entire group is 5.1 per cent, and the mortality rate for all cases of ruptured appendicitis is 16.4 per cent. Mortality rate for cases of acute unruptured appendicitis is 0.145 per cent. In 31.6 per cent of all patients admitted with acute appendicitis, the appendix was ruptured. More than half of all patients had received cathartics before admission. The results reported here can be favorably compared with those reported recently by other university hospitals.

Paper discussed by Dr. Brooks.

3. "The Direct Determination of Renal Blood Flow and the Oxygen Consumption of the Unanesthetized Dog," by Drs. M. F. Mason, Alfred Blalock, and T. R. Harrison.

A method of determining the renal blood flow and oxygen consumption of unanesthetized dogs has been devised. A modified Morawitz cannula is passed into the in-

ferior vena cava via the external jugular vein. Balloons on this cannula block the vena cava above and below the renal vein orifices. The renal venous blood diverted into the cannula is directly measured with a graduated cylinder. The renal blood flow was found to average twenty-one cubic centimeters per minute per kilo body weight. The renal oxygen consumption averaged five cubic centimeters per kidney per minute.

Paper discussed by Drs. Blalock, Levy, and Wells.

January 8, 1937

1. Report of Cases: "Report of a Case of Gonococcal Endocarditis Treated with Kettering Hypertherm," by Dr. Robert Williams.

Ten cases of gonococcal endocarditis have occurred here in the last ten years. The last such case admitted here ran a typical course of this disease and gonococci were cultured from his blood on three occasions. Following treatment in a Kettering hypertherm for five hours, with patient's temperature averaging 105.5° F., a blood culture was found sterile. A second such treatment was given, keeping his temperature at 106.7° for six hours. He died the following day and thorough examinations at necropsy failed to show any organisms. It was felt that this patient's blood was sterilized by the heat. This form of treatment seems promising for an almost constantly fatal disease.

Case discussed by Drs. Morgan, Weinstein, and Regen.

2. "Cyclopropane: A Method for Quantitating Cyclopropane in Air and Blood. Concentrations of Cyclopropane in Air and Blood Necessary for Anaesthesia and Respiratory Arrest," by Dr. B. H. Robbins.

The iodine pentoxide oxidation train has been adapted for the quantitative determination of cyclopropane. The solubility of cyclopropane in water, plasma, whole blood, and cells was found to be 21.7, 32, 54, and 80 cubic centimeters per 100 cubic centimeters, respectively, at 34° C.

Average concentrations of cyclopropane in oxygen for anesthesia and respiratory



arrest in seventeen dogs were twenty-two per cent and thirty-six per cent; average concentrations of cyclopropane in blood producing anesthesia and respiratory arrest were seventeen and twenty-eight milligrams per 100 cubic centimeters, respectively.

The rate of elimination of cyclopropane from dogs is much more rapid than that of ether.

Paper discussed by Dr. Youmans.

3. "Some Observations on Seventy-eight Cases of Pernicious Anemia, with Special Reference to Weight Changes," by Dr. Edgar Jones.

Of forty-four cases of pernicious anemia suitable for weight studies, forty-two had lost from their usual weights on admission to Vanderbilt Hospital. These losses ranged from two to forty-two per cent. By using the ideal, usual and admission weights of each patient, it was found that there was no mathematical significance in the difference between the means of the ideal and usual weights, but a significant difference between the means of the admission and ideal, and the admission and usual weights. Some possible factors involved in these weight changes are discussed. These findings are believed to be contrary to the usually accepted concept of weight changes in patients with pernicious anemia.

Paper discussed by Drs. Morgan and Youmans.

## ABSTRACTS OF CURRENT LITERATURE

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

Study of the Effect of Different Anesthetics on the Electrical Potential of the Brain Cortex. Burge, Wickware, and Schamp. *Current Researches in Anesthesia and Analgesia*, November-December, 1936.

Unconsciousness is due to the lack of electrons in the cortex of the brain. It is the result of a drop of electrical potential in the cortex for the reason that electrons are leaving the cortex via motor nerves faster than they are arriving over the sensory nerves. It seems that the active conscious cortex is electronegative and the unconscious inactive cortex is electropositive.

General anesthetics block the entrance of sufficient electrons or negative charged ions into the cortex of the cerebrum. Local anesthetics block the waves of electronegativity preventing them from reaching the brain via the sensory nerves. It is believed that there is a threshold of electrical potential in the cortex. Below this potential the subject is unconscious.

Experiments were made on dogs under various general anesthetics, also on dogs subjected to hemorrhage and to asphyxia. A nonpolarizable electrode was placed against the exposed cortex. Another was placed against the exposed sciatic nerve. Both electrodes were connected by wires to a delicate galvanometer. It was found that the deeper the anesthesia the more the brain cortex became electropositive and on regaining consciousness the negative potential increased.

### DERMATOLOGY

By E. E. BROWN, M.D.  
Doctors Building, Nashville

External Causes of Dermatitis, A List of Irritants. Leonard F. Weber, M.D., Chicago, Ill. *Archives of Dermatology and Syphilology*, January, 1937.

The list is arranged alphabetically and also according to occupations in which they occur, thus enabling one to locate the irritants in specific cases. There is a comment on most of them. The list is too long for abstract, but should be obtained for reference.

A Simple Method for the Removal of Tattooing. Janson, *Dermat. Wchnschr.* 101: 894 (July 20, 1935).

He stated that in 1921 he observed that soldiers living in relatively unsanitary surroundings exhibited folliculitis and excoriations from scratching. In several instances he noted the disappearance of tattooing in areas which had been subjected to constant scratching and secondary infection.

Later he removed a tattoo from a patient's back by scrubbing the area with a stiff brush, the area being previously anesthetized with procaine hydrochloride. Three treatments removed the tattoo and the cosmetic effect was very good.

### OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.  
Suite 316 Doctors Building, Nashville

Incontinence of Urine in the Female. William T. Kennedy. *Am. J. Obs. and Gyn.*, 33: 19-29, January, 1937.

This paper is an unprejudiced endeavor to evaluate the loss of urethral function that women suffer who are afflicted with incontinence of urine and an effort toward improving the author's results while alleviating this disturbance.

The method of obtaining roentgenograms with observations as to the function of the urethral sphincter is described. The average length of the urethra was noted to be between four centimeters and four and one-half centimeters and there is a sphincter muscle around it throughout its entire length. This sphincter is divided into an involuntary muscle about each of the inner and outer thirds of the urethra, while there is an additional sphincter about the middle third that is probably under voluntary control.

The causes of incontinence are: (1) trauma of the inner and middle third sphincters of the urethra causing them to become partially fixed to the posterior lateral margins of the pubic rami, and (2) damage in the mid-line to those voluntary fibers which pass under the middle third of the urethra constituting a "sling support."

Incontinence can be relieved by (1) breaking down the fine bands between the urethra and each posterior lateral portion of the ramus and plicating the urethra in the mid-line, and (2) bringing together in the mid-line under the middle and inner thirds of the urethra the ends of the muscle to repair the sling support that has been damaged. The operative procedure in detail is to appear in later issues.

**Syphilis and Pregnancy—A Clinical Study of 2,150 Cases.** J. R. McCord. Jour. Am. M. Assn., 1935, 105: 89.

Following a review of 2,150 cases of syphilis and pregnancy these conclusions are made:

(1) Pregnancy does not affect the reliability of the Wassermann reaction.

(2) This test should be a routine in all ante-partum care.

(3) Regardless of the activity of the disease, sufficient ante-partum antisyphilitic treatment assures the woman a syphilis free baby in ninety-five per cent of cases.

(4) The best results will be obtained with ten or more treatments.

(5) The treatment should be mild but continuous, and should not be controlled by the Wassermann reaction.

(6) The concurrent use of arsenic and a heavy metal gives good results.

(7) Such therapy seems to be safe for the mother.

(8) In the vast majority of cases a strongly positive Wassermann reaction of the cord blood means that the baby has congenital syphilis. A negative Wassermann reaction in the cord blood is of little aid in ruling out congenital syphilis.

(9) The characteristic picture of osteochondritis of the long bones is pathognomonic of congenital syphilis.

## OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
Doctors Building, Nashville

**Common Tumors of the Eyelids.** Dr. C. S. O'Brien and Dr. A. E. Braley. Archives of Ophthalmology, December, 1936.

Among 100 consecutive tumors of eyelids, all of which were removed and studied under the microscope, there were eighty-four benign and ten malignant neoplasms. The incidence of the benign tumors according to types was as follows: papillomas, thirty-four; nevi, seventeen; sebaceous cysts, thirteen; fibromas, five; sudoriferous cysts, four; hemangiomas, four; dermoid cysts, two; molluscum contagiosum, two; sweat gland adenoma, one; xanthelasma, one; and granuloma, one. The incidence of the malignant tumors was: carcinomas, fifteen and malignant melanoma, one. The clinical classification was found to be rather difficult at times; one cannot always make an accurate clinical diagnosis without microscopic studies.

## OTOLOGY, LARYNGOLOGY, RHINOLOGY

By W. W. POTTER, M.D.  
Medical Building, Knoxville

**Mixed Tumors in the Nose and Throat.** Perry G. Goldsmith, M.D., and P. E. Ireland, M.D. Annals of Otolaryngology, and Rhinology, December, 1936. Vol. 45, p. 940.

The authors discuss mixed tumors of the salivary gland type occurring in the nose and throat and report six very interesting cases, outlining the treatment used in these cases. This type of tumor is not by any means a rarity. They may occur at any age, they may be intimately associated with salivary glands, or may arise in the retropharyngeal region, cheeks, lips, base of tongue, palate, lacrimal gland, or accessory nasal sinuses. The soft palate is very often involved. The authors discuss the present status of our knowledge of the origin of these tumors and summarize as follows: "First, the endothelial origin, as advocated by some, has been disproved. Second, no single origin meets all the requirements. Some are distinctly adenomatous, and probably arise from the acini and ducts of the gland in which they are incorporated, others are encapsulated or extraglandular and take the form of basal-celled or adenoid cystic epithelioma. These probably arise from misplaced and occasionally embryonal portions of gland tissue. Branchial remnants may probably be connected with this group. Third, the derivation of mucous tissue and cartilage, by metaplasia, from gland epithelium, has practically been proven, and there is no need of including them in the originating tissue." These tumors are usually of slow growth, but vary, of course, with the histologic type. The average is about eight years. The

authors conclude that these tumors are not true teratomas. Those closely associated with the glands probably arise from the gland ducts. The aberrant type form embryonal rests. Involvement of the accessory sinuses is rare. The treatment for complete surgical removal is the most satisfactory measure in this series. Radiation as a primary treatment should not be considered. Recurrence of the growth is frequent and no attempts to report any cases as cures has been made.

### **PEDIATRICS**

By JOHN M. LEE, M.D.  
Doctors Building, Nashville

**Effect of Thyroid Therapy on the Mental and Physical Growth of Cretinous Infants.** Arnold Gesell, M.D., Catherine Strunk Amatruda, M.D., and Charles S. Culotta, M.D. New Haven, Conn. *Amer. Jour. Dis. Children*, November, 1936.

Six children with frank signs of cretinism or hypothyroidism were observed under treatment for from thirteen months to nine and one-half years. Their physical and mental growth were compared with a normal child and also with an untreated adult cretin and the following general conclusions were reached:

"The effects of thyroid substance on the cretinous infant are of three kinds: (a) metabolic, or dynamic, (b) somatic and (c) neurodevelopmental.

"The metabolic effects, which involve the vegetative system and the dynamics of behavior, are the most immediate and general.

"Marked physical improvement occurred in all our cases with development of a normal appearance and acceleration in physical growth, particularly in the length of the legs.

"The mental status under treatment varied widely, from persisting severe mental deficiency to normal intelligence.

"Every cretin has a latent and distinctive optimal response, which is probably favored by early treatment.

"The ultimate response can be forecast by repeated careful determinations of physical growth and of behavior status during the early months of treatment.

"The therapeutic effects of thyroid substance depends on factors of biochemical readiness in the organism. It is a reasonable assumption that the primary effect is on the thyroid itself and on associated glands, enabling them to resume their regulatory functions. The final influence on the cretin is therefore contingent not so much on the age of the child or his maturity status at the time of diagnosis as on the residual physiologic capacity and the latent growth potency of his neuroendocrine system. Thyroid therapy cannot bring about normality if there has been a fundamental impairment of that system, hereditary or developmental. The initial response to treatment is part of a total symptomatology, and at the same time it is an

index of the reserve capacity of the neuroendocrine system. This response cannot be fully determined without a diagnosis of the behavior status. The development of the central nervous system can be tested only by an appraisal of the infant's behavior patterns. Such an appraisal of behavior maturity is part of the task of the clinical pediatrician and is essential to a timely diagnosis and prognosis of cretinism in infancy."

### **ROENTGENOLOGY**

By FRANKLIN B. BOGART, M.D.  
Medical Arts Building, Chattanooga

**The Cause of Roentgen Ray Dermatitis Among Physicians.** Leddy, Eugene T. *The American Journal of Roentgenology and Radium Therapy*, Vol. 36, Number 4, October, 1936.

The report is based on a study of fifty-five physicians suffering from roentgen ray dermatitis who came to the Mayo Clinic between 1919 and 1934, as patients. The diagnosis of roentgen ray dermatitis was restricted to those cases showing severe telangiectasis, keratosis, ulceration (acute or chronic) or epithelioma, alone or in combination. While it was recognized that such lesions as erythema, fissured nails, rough skin, atrophy of the fat pads and hangnails are often the result of excessive exposure to X-rays, they were not included because they may also arise from other causes.

Of the fifty-five physicians, eight had been injured while undergoing treatment and all for benign dermatosis. Only one had been treated by a dermatologist or radiologist. One physician was injured from handling radium and it could not be determined whether it resulted accidentally or from carelessness. One physician received a severe acute reaction during an experimental determination of dosage.

The other forty-five physicians all sustained their injuries from using the fluoroscope in their practice. Most of the injuries resulted from reducing fractures or removing foreign bodies. A few had sustained their injuries from fluoroscopic chest cases while making surveys or in doing gastrointestinal work. An interesting fact is that forty-four of the forty-five physicians were not radiologists, although some had done fluoroscopic work since the early days.

The number of exposures received varied widely. One physician sustained a severe ulceration following a single exposure during fluoroscopic work. Others had been doing fluoroscopic work for years before signs of injury appeared. Eighteen of the physicians had epithelioma, fifteen had acute or chronic benign ulcers. Most of the injuries were on the hands and none of the patients had injuries to the face or eyes.

The injuries were always on the dorsum of the hand in the group injured by fluoroscopic work.



The palm of the hand was never affected. The left hand usually showed evidence of injury before the right and the index finger was the site of the first signs of the skin changes.

None of the patients had regularly worn lead rubber gloves before the first sign of injury was noted, although most of them did after this time. Many of the physicians had assigned some other cause to the skin changes when they first appeared, as hypersensitivity to soap or other disinfectants used in sterilizing the hands before operations or allergic manifestations to some unknown agent. Three treated the early lesions with ultraviolet and five with radium or X-rays.

In no case did the injury appear after the latent period during which the skin was apparently normal. Usually an acute erythema resulted from fluoroscopic exposures. After this subsided further fluoroscopic work was resumed with greater caution so that repeated small doses were added to an already injured skin. Some trauma then precipitated ulceration.

The conclusions are that the causes of roentgen ray dermatitis among physicians are: (1) the use of the fluoroscope without protection to the hands; (2) the use of roentgen rays by those whose roentgenologic training is deficient.

ABSTRACTOR'S NOTE.—At the present time, when X-ray equipment is more widely distributed than ever before and is being used by many general practitioners and specialists in their work, this report should be of unusual interest. It is of particular interest to note that many of the injuries resulted from prolonged fluoroscopic exposures while reducing fractures or removing foreign bodies. The information contained in this article should be presented to as many groups of physicians as possible.

### **SURGERY—GENERAL AND ABDOMINAL**

By **BATTLE MALONE, II, M.D.**  
1400 Monroe Avenue, Memphis

Nonoperative Care of Head Injuries. Philip Work, M.D. *Colorado Medicine*, 32: 968, 1935.

With a few exceptions skull fractures may be disregarded. The essential to be remembered is brain damage. X-ray studies can usually be postponed to advantage especially when the patient is in profound shock.

Trauma which produces unconsciousness will induce definite physical changes in the brain structure ranging as high as extensive hemorrhages and lacerations, and there may be no fracture. Following severe injuries there is first extravasation of blood. About three hours later comes the cerebral edema. There is a definite overactivity of the choroid plexus adding to the already increased intracranial pressure. Late unconsciousness is an

indication against rather than for surgical intervention.

There are two methods of relieving the brain compression: reduction of the body fluids generally or direct withdrawal of fluid from the intrameningeal cavity. The author believes that immediate spinal puncture should be made primarily to determine the amount of blood present in the fluid and to determine the pressure. Some men decried puncture at any time for fear of increasing hemorrhage or encouraging prolapse of the medulla. In several thousand cases the author has seen neither of these events and frequently there has been an almost immediate release from a delirium or coma.

Neither method of reducing the intracranial pressure can completely supplant the other. The intake of fluids should be restricted to 800 or 1,000 cubic centimeters in twenty-four hours. Purgation by salines aids general depletion. Hypertonic enemata is moderately effective. Hypertonic glucose is of great value. Venesection depletes the general reserve and should not be used. Punctures should be done at least every twelve hours in the early stages and fluid is withdrawn until the pressure approximates the normal. The amount of blood in and the pressure of the spinal fluid give an approximate estimate of the cerebral damage. The depth and duration of unconsciousness are directly proportionate to the extent of the injury.

General care of the patient is important with especial attention to the bowels and bladder. In delirium physical restraint is better than drugs.

### **UROLOGY**

By **TOM R. BARRY, M.D., F.A.C.S.**  
By **G. A. WILLIAMSON, JR., M.D.**  
Medical Building, Knoxville

The Ureteral and Renal Complications of Carcinoma of the Cervix. Roger C. Graves, C. J. E. Kickman, and I. T. Nathanson. *Jour. Urology*, December, 1936.

Two hundred and fifty-seven cases of carcinoma of the cervix were studied for pathological changes in the upper urinary tract. The cases varied in age from twenty to eighty, with the greatest number in the middle age group. In degree of malignancy, they varied from grade I to IV, with the majority in grades III and IV.

Of the 257 cases, eighty-seven were studied at post-mortem examinations, ninety-two were subjected to complete urological studies, and the remainder had records complete enough to warrant their inclusion in this series.

On admission, twenty-two cases had renal tenderness, nineteen had palpable enlargement of a kidney, and twelve had anuria. Blood ureas were made on 139 of this group. Of this series, fifty-eight gave readings below forty milligrams and eighty-one above forty milligrams per 100 cubic centimeters.

A phenolsulphonphthalein function test was done on sixty-eight cases. The function was below twenty per cent in twelve, zero in four, between twenty and forty per cent in thirty-two cases, and above forty per cent in twenty-four cases.

Of the ninety-two cases subjected to urological examination, 37.3 showed evidence of ureteral narrowing, unilateral in two-thirds, and bilateral in one-third, 81.3 per cent showed ureteral or renal pelvic dilatation. Intravenous urograms in forty cases showed dilatation or complete absence of excretion in 77.5 per cent. Of the total cases stud-

ied at post-mortem examinations and by urological examinations, 70.7 per cent showed positive signs of upper urinary pathology.

From this study it is obvious that ureteral occlusion occurs commonly in carcinoma of the cervix, especially in those cases where the disease has extended beyond the limits of the cervix itself.

These writers are of the opinion that all cases of carcinoma of the cervix should have an early urological examination in order to recognize these complications, and give them clinical attention before advanced pathology has developed.

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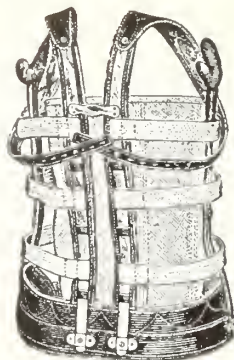
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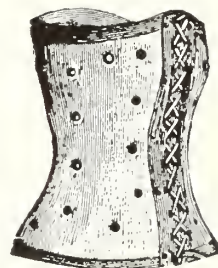
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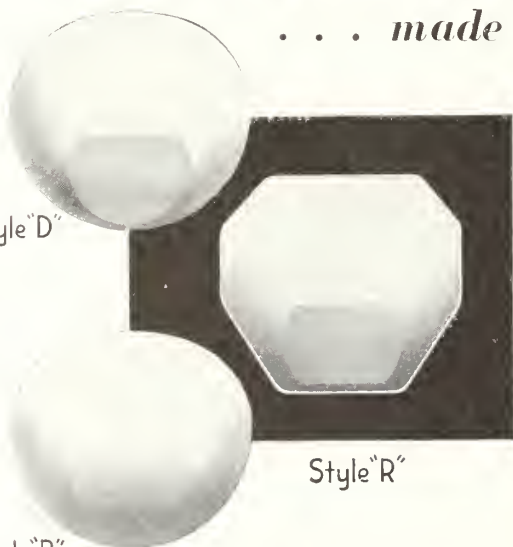
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### SOME DETAILS IN MANAGEMENT OF CASES OF ENLARGEMENT OF THE PROSTATE\*

JEFFERSON C. PENNINGTON, M.D., and EARL C. LOWRY, M.D., Nashville

**VASECTOMY.**—One reason for discussing vasectomy is that we get so many prostatic cases with epididymitis. Another reason is that we know of so many prostatic cases who never get their prostates cared for because epididymitis was the immediate beginning of their demise before ever having a chance to do anything about their prostatic symptoms.

**Percentage.**—In patients with enlarged prostates who do not have vasectomies, acute epididymitis occurs in about 1.3 of them. This causes chills, pain, fever, and general debility.

Usually such prostatic patients require constant drainage, either by a catheter through the urethra or a suprapubic catheter. When epididymitis occurs, a urethral catheter cannot be tolerated, because it will make bad matters worse by bringing about abscesses of the epididymis and testicle and even sloughing out of the testicle. There are cases on record where both of the testicles sloughed out in toto.

After epididymitis sets in with catheter drainage, the catheter should be removed and a suprapubic cystotomy done. This necessitates longer hospitalization.

**Choice of Patients for Vasectomy.**—The patient should be at the age where he desires no more children, and his wife should be past childbearing age if he has a wife.

Vasectomies are requested by young men who do not care to be fathers, and such cases are always refused.

A well-known court record is of a physician who referred a wealthy twenty-four-year-old man to a urologist for a unilateral vasectomy because of a troublesome infection of the epididymis. By mistake the urologist did both sides. The patient found out about it and sued for \$250,000. The case rocked along, being postponed by every means possible. Finally one of the doctors being sued resurrected an old medical book of some kind which stated that when the vas was cut it would eventually reunite. Another postponement was obtained, and as time rocked along the wife of the plaintiff became pregnant. The part played in this by the doctors being sued has not been divulged.

**Difficulties.**—Assuming that the coast is clear for a bilateral vasectomy, there are many difficulties to be met. First, there may be the much enlarged vas on one or both sides because of trouble in younger years, when youth was rampant and grazing in verdant pastures of sin. Such vasi vary in size from normal up to the size of one's little finger.

We can recall that upon one occasion a college professor was the subject. We knew that one side had been in serious trouble fifty years previously. We also knew that he had a stricture of the urethra which would admit only a No. 20 F. catheter.

\*Read before the Tennessee State Medical Association, Memphis, April 14, 15, 16, 1936.

This was about the size of his vas on the pathological side. During the operation, we were sure that we were handling this big vas, but all of a sudden when cutting this thought-to-be vas we cut into a rubber catheter. We thus realized that we had cut the urethra with its contained catheter. We put in another catheter, sutured the urethra, and proceeded with the vasectomy. He never showed any signs of having had his urethra cut. We did a prostatic resection later without the instrument even hesitating at the point where we had severed the urethra and its contained catheter. He survived all that we did to him and died of angina pectoris two years later.

Arteriosclerosis offers quite an obstruction. In two or three cases we have abandoned vasectomy because we could not differentiate the vas from the hardened arteries. You might say feel for pulsation of the arteries. Well, this did not work. So, rather than cut unidentified structures, we abandoned the operation. It has been suggested that we needle such structures. This we expect to do, and if blood is not found, we can take the structure to be vas.

Sometimes a short scrotum prevents one from getting above the testicle. No matter how much you pull down on it, there is no success. Application of hot packs is helpful in some cases.

Of course, when there is a testicle in the abdomen, the job is hopeless.

On one occasion we secured a roll of hard substance between our fingers which was the only official feeling thing we could identify as the vas. We carried on. Finally, we saw into the outside world through the skin of the posterior scrotal wall. We had been holding a roll which we identified as vas deferens.

Various schemes have been devised to prevent infection from passing down the vas deferens to the epididymis. One was passing a suture through the skin and beneath the vas deferens and tying the skin and vas deferens. This is only a temporary measure at the best and should not be trusted.

The conventional procedure has been to lay the scrotum wide open on each side, then

deliver the testicle and cord; then isolate the vas on each side and tie off and cut the vas. This procedure almost invariably results in infection, sloughing, and a long stay in the hospital. Besides it makes the patient conscious of the fact that something has happened to his bag. This causes mental depression and wonderment because his bag is one of his proud possessions that should never be injured, no matter what his age or the usefulness of the bag or its contents might be. Another method, tedious and bunglesome, was to make two herniaotomy incisions.

Thus we devised a simple method of bilateral vasectomy through a tiny incision usually one-fourth inch long in the scrotum and never more than one-half inch long. The patient does not feel it and is never aware that something has happened to his precious belongings.

The scrotum is shaved and painted with picric acid. One vas is brought up close under the skin between two fingers and a towel clip passed beneath it. The vas is then cut down upon. With other towel clips under the naked vas it is elevated through the tiny incision, tied off, and cut. Then the other vas is brought through the same incision by the same method, tied off, and cut. Usually two catgut sutures close the incision tightly. A small collodion dressing is applied, and it is rare that the field of this procedure ever requires any further attention.

Argument has been made that the above procedure requires going through the scrotal septum. It does not. See Fig. 1 and explanation under it.

*The Catheter.*—Nothing will cause more discomfort for a patient and be more time consuming for the physician than a cath-

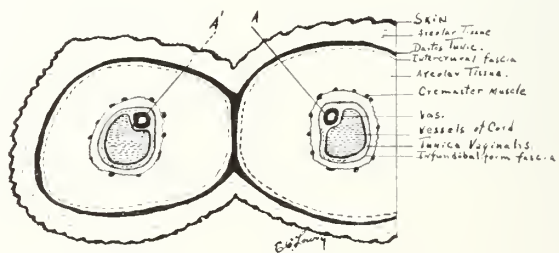


Fig. 1. Cross section of scrotum at site of vasectomy.

eter which will not drain. It is not the purpose of this paper to discuss the indications for a retention catheter but to mention some situations which commonly occur and methods of dealing with them. There are, of course, many ways of dealing with the same situation, but methods will be presented which have been satisfactory for each individual case.

*A properly chosen retention catheter placed correctly in the bladder should fit and be as comfortable, after the first twenty-four hours, as an old shoe.* As long as the catheter receives the necessary care, it should remain comfortable; but if it is allowed to become obstructed, it will result in an almost unbearable situation for the patient. When the catheter has been placed at the desired depth in the bladder, one must see that it stays there. If it gets too deep into the bladder or slips out into the urethra, it becomes uncomfortable and produces symptoms characteristic of each malposition. By properly choosing a catheter, placing it at the proper depth in the bladder, and securing it adequately, much is added to the comfort of the patient, and a great deal of time and worry saved for the physician. It is equally important to give the indwelling catheter care several times daily to insure that it works properly. The severe spasms and pain seen in patients with obstructed catheters, the reopening of healed suprapubic wounds, and prolonged illness where the catheter does not work properly all serve to emphasize the importance of care so as to secure proper drainage.

*Placing the Catheter in the Bladder.*—The first thing to consider is the type of catheter to be used. It has been found that the softer the catheter the more comfortable it is, also a two-eyed catheter will drain more effectively with a fifty per cent greater chance not to become obstructed. One should examine the urethra as to the size and get a catheter which corresponds as nearly as possible. Sizes most commonly used are 18 to 22 F. These catheters have a hollow tip so that the catheter guide may be used if desired. The patient should be shaved as it makes the procedure easier

on him, especially if the catheter has to be replaced frequently.

We know of no place in our practice or anyone else's practice for a metal catheter. The risk of trauma is too great (see Fig. 2). Anything that can be done with a

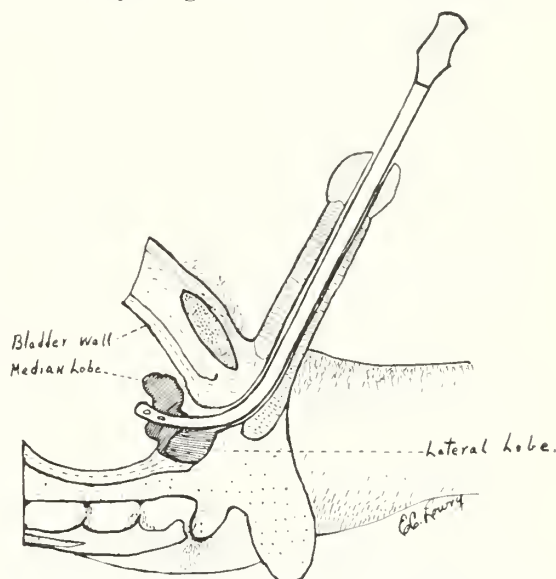


Fig. 2. A frequent cause of hemorrhage—penetration of middle lobe with metal catheter.

metal catheter can be done with a soft rubber catheter on a guide and done without risk of trauma. See Fig. 2 and note that the metal has passed through the middle lobe of the prostate. The consequence is trouble and plenty of it.

*After the catheter is introduced into the bladder, it is important to place it at the proper depth.* Using a bulb syringe and sterile water, the catheter is drawn as far out of the bladder as possible to still permit easy irrigation. This is accomplished by pulling the catheter distally until no fluid can be withdrawn, then pushing it back into the bladder about one and one-half inches, or the distance necessary to place the second eye of the catheter in the bladder. When the proper position is attained, the catheter should be firmly secured. If the catheter is in the proper position, all fluid injected into the bladder can be recovered by suction or by gravity.

*Securing the Catheter.*—To secure the catheter several qualifications should be met, and of course the material almost universally used is adhesive.



1. More than sixty per cent of the skin surface of the penis should not be covered.

2. The meatus should be left open for free drainage of mucus and any substance which might form in the urethra.

3. If a circular band of adhesive is used it should be loose, so as not to produce edema of the prepuce or glans, however a spiral securing band is preferable, or a circular band near the base of the penis.

4. The adhesive is secured to the catheter so that regardless of how wet it becomes it will not slip.

Three narrow strips of adhesive have been found satisfactory, one dorsally placed and two laterally on the penis. These are put on with the penis under slight tension, and the prepuce in normal position. These are secured on the penis with a circular band of adhesive near the base of the penis or a spiral band along the whole length. Then with an ordinary twine string the adhesive is secured around the catheter by tying about three equidistantly placed ties around adhesive and catheter. The first tie is at least one-fourth of an inch from the meatus. These ties, if tied tightly, will prevent any slipping of the catheter regardless of how wet the adhesive may become. The connection tube works best passed under the knee to a bottle on the side of the bed. The tube is supported by a pin to prevent the weight of the tube from pulling on the penis. One patient found it more comfortable to tie a piece of roller bandage twelve inches long around the tube and pin the bandage to the bed, thus getting the same support and a radius of twelve inches to move about in the bed without making traction on the tube. See Fig. 3.

*Management of the Catheter.*—Every one is familiar with the routine manage-

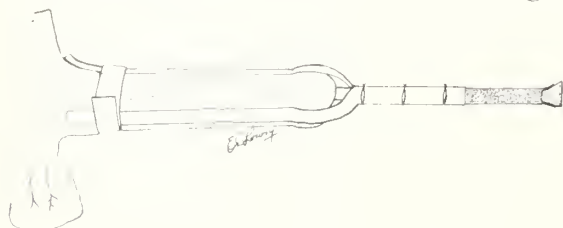


Fig. 3. Technique for securing retention catheter.

ment of the retention catheter. Consideration is given at all times to the law of gravity. The bladder should be washed out thoroughly every eight hours with a sterile solution of some type, such as a boric acid solution. This prevents obstruction from mucus and shreds of tissue. The mucus around the meatus is washed off daily with hydrogen peroxide, soap, and water. This adds much to the comfort of the patient and keeps him in a more optimistic mood. Because of the various situations which may arise it is better to list them and discuss each one separately.

1. Tip of the catheter in the posterior urethra.

2. Catheter too deep in the bladder.

3. Drainage following spinal anesthesia.

4. Drainage in hemorrhage.

a. Active bleeding.

b. Old hemorrhage.

1. *When the Tip of the Catheter Slips into the Posterior Urethra.*—The most frequent malposition of a catheter is when the tip slips out of the bladder into the posterior urethra. This usually occurs in twenty-four to forty-eight hours after insertion of the catheter, at which time the adhesive begins to slip, and especially does this occur when the catheter has been secured by inexperienced hands.

In this situation a definite picture is produced. The catheter will drain intermittently, and just before a period of drainage the patient will complain of a desire to urinate, cramps, and "pain on passing my water." When several ounces have accumulated in the bladder every ten to fifty minutes, the patient will experience the same spasm of the bladder; and when the bladder has been emptied, he is relieved again. It may be two or three hours between the periods of drainage, and often urine will escape around the catheter during the spasm. The time interval will vary with the degree of inflammation in the bladder.

If the catheter is irrigated with a bulb syringe, water will go easily into the bladder, but cannot be withdrawn. Should the tip of the catheter lie between the internal and external sphincter, the patient may

complain constantly of a desire to urinate. The diagnosis and treatment of this situation is simple. The catheter is pushed the desired depth in the bladder and secured.

2. *When the Catheter Is too Deep in the Bladder.*—It very frequently happens that the catheter is pushed too far into the bladder, the eyes of the catheter being obstructed on insertion by mucus or pus. The patient will very often have a feeling or sensation of a foreign body in the bladder and may even point out the place where the tip of the catheter is rubbing. However, the sensation in all cases is not so accurate, and in the tabetic bladder no sensation will be felt.

When this situation presents itself, it will be found that the catheter will not drain consistently, but intermittently. The patient never feels that his bladder is empty, and drainage is more free when the patient has an urgent desire to urinate. With a bulb syringe, sterile water goes into the bladder easily, but the bladder cannot be completely emptied by suction. When suction is released, a small amount of fluid may escape, showing that some fluid was still left in the bladder. When the bladder is emptying with suction, at the moment the catheter bends enough to produce obstruction, two or three heavy vibrations will be felt at the end of the catheter. The principle being that of the hydraulic ram aided by the bladder pressure. If the catheter is deep enough to bend on itself, of course, obstruction is produced. It will then drain only if some force releases the bend. This may be done in three ways—

- a. Spasm of the bladder producing pressure on the urine.
- b. Distention of the bladder until the catheter straightens enough to drain.
- c. Adjustment of the catheter, placing it in the proper position.

When the catheter is deep enough to present a situation as described above, both distention and bladder spasms are the factors producing drainage. This seems off-hand to be a situation which would rarely happen, but when one looks for it, he encounters it not infrequently in catheters which have been put in by inexperienced

hands. This situation apparently diminishes the amount of urine formed in twenty-four hours. Adjustment of the catheter by the method described above will immediately correct this situation.

3. *Management of the Catheter Following Spinal Anesthesia.*—Following spinal anesthesia, there is a loss of tone in the bladder muscle for a varying period of time, from a few to twelve hours. The well-known custom of elevating the foot of the bed ten inches to fourteen inches will make it impossible for a retention catheter to begin drainage by gravity. The catheter and connection tube are higher than the bladder. Thus urine will collect in the bladder until it becomes enormously distended. If allowed to stand, the patient will get a severe reaction from it, may have chills and fever, and on the second to fourth day will be quite tender over the lower abdomen. This lack of drainage is purely mechanical, and is easily corrected by remembering that the bladder muscle is atonic. If the special nurse will empty the bladder by suction with a bulb syringe every two or three hours, the trauma and reaction which results from overdistention of the bladder will be prevented.

4. *Management of the Catheter in Hemorrhage.*—Hemorrhage into the bladder is a very difficult situation with which to deal. However, if very careful work is done with the catheter, it will be possible a great many times to control the situation without opening the bladder. Several factors must be taken into consideration in the management of hemorrhage. Is the bleeding slow enough to manage with a catheter? Is the hemorrhage active or has it stopped, leaving the bladder filled with blood clots? If the bladder contains clotted blood, is the quantity small enough to be handled with a catheter, or will it be necessary to do a suprapubic cystotomy? In any case, the treatment is divided into two major plans—first, that in active bleeding; and second, that in old hemorrhage.

4-a. *Active Bleeding.* — During active hemorrhage into the bladder, usually following posterior urethral trauma or a prostatic resection, the intensity of the bleeding

must dictate whether it will be controlled with a catheter or whether more radical steps are to be taken. During slow hemorrhage, several methods have been employed to control it. Continuous irrigation may be used, also constant washing with a bulb syringe, together with sedatives and drugs to decrease coagulation time of the blood has been suggested.

By giving the patient sedatives so as to keep him quiet and adopting the following procedure, many times bleeding may be stopped. With the retention catheter in place, four ounces of cold normal saline is injected gently into the bladder. This is clamped off and allowed to drain every ten to thirty minutes and replaced by fresh solution. The bladder is not irrigated during the changing of the solution as this may stir up more hemorrhage. If bleeding is profuse, the amount of fluid left in the bladder may be increased and replaced by fresh fluid at more frequent intervals. Gentleness is very important in this procedure. This method has the following effects upon the hemorrhage:

1. Pressure in the bladder helps to control the hemorrhage, and this may be varied by varying the amount of fluid left in the bladder.

2. The fluid dilutes the blood and prevents the formation of clots, thus the bladder may be kept emptied of blood.

4-b. *Old Hemorrhage*.—Occasionally one encounters clotted blood in the bladder. If bleeding is still active, more radical measures have to be adopted but if the bleeding has stopped, it is possible to empty the bladder by the use of the catheter. This is especially true if the amount of blood in the bladder is not taxing the bladder capacity.

A large catheter is introduced, 22 or 24 F. with two eyes. It is passed deep enough that the tip is several inches in the bladder, passing beyond the clots. The patient is given large doses of sedatives to keep down spasms of the bladder. The special nurse injects one-half ounce of fluid (sterile water) into the bladder about every twenty minutes, taking special precaution not to allow suction to be made. If suction is

made, clots will be drawn into the eyes of the catheter, producing obstruction. The syringe should be removed from the catheter with inward pressure still being exerted. The fluid injected will usually run out slowly, together with what urine has been formed. This procedure is kept up from twelve to twenty-four hours, at which time the friable disintegrated clots may be washed out through the catheter. The patient will usually have fever of 101 to 102 until all the clots are removed. This procedure will very often empty the bladder and prevent doing a suprapubic cystotomy.

*A New Catheter*.—I wish to mention briefly a new catheter devised by one of us for use in closing suprapubic cystotomy wounds. It is a soft rubber catheter, F. 24 in size, which permits drainage either suprapubically or through the urethra. It permits tight closure of the suprapubic wound, keeps the wound dry, and thus promotes earlier healing of the wound and less expense to the patient for dressings. It is more convenient for the physician because it is easy to keep open, easily adjusted, and it cannot be removed accidentally by the patient.

*Summary*.—1. Vasectomy is a very important procedure and may be done by the simple new method here presented with no discomfort nor alarm to the patient.

2. It is very important to select properly a catheter of correct type and size.

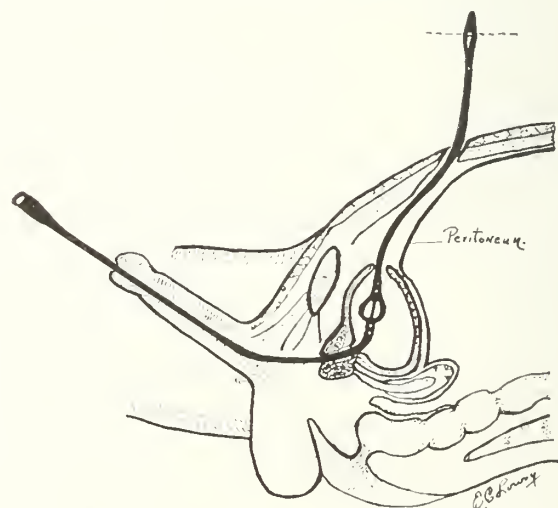


Fig. 4. Sketch to show the Lowry Two-Way Drainage Catheter in position.



3. It is essential to place the catheter in proper position and care for it with diligence.

4. Hemorrhage into the bladder may often be controlled by proper manipulation through the catheter and thus avoid suprapubic cystotomy.

5. Blood clots in the bladder in absence of active hemorrhage may often be removed by proper manipulation through the catheter and thus avoid suprapubic cystotomy.

6. The new Lowry two-way catheter is distinctly a convenience, an addition to the patient's comfort, and a shortener of hospital time.

#### DISCUSSION

DR. H. K. TURLEY (Memphis): Mr. Chairman and Members of the Society: I think Dr. Pennington has given us a very timely paper about the preparation of the prostatic patient. It is the little tricks of the game that seem to be the things that carry most weight with the patient. We may be more concerned with the operation, but it is the little things that make him comfortable, that hold the catheter well, that make his stay in the hospital more comfortable, that are just as important to him as the operation, or more so.

The discussion on epididymitis is of vital importance because often we see these patients go through a major urological operation, begin to sit up about the fourth or fifth day, and then come down with rigors, fever, general sepsis and epididymitis. It is the straw that breaks the camel's back, and it is just about enough to make these old patients give up, as it usually does hasten death in some of those cases.

I think all cases of prostatic operations, resection and prostatectomies both, should have a vas ligation, preferably as soon as the treatment is started, just as soon as they enter the hospital, at the time that a catheter is inserted into the bladder for drainage.

The method described by the essayist is a rather novel one. I have been using a method somewhat similar, but making two incisions, one over each side of the scrotum, which is about a quarter of an inch or a half-inch long, simply isolating the vas, usually by a straight needle underneath the vas, or a curved needle; I think it is Hinman who describes the method of a curved needle, and after it is passed under the vas a clamp is put over the end of the needle and it is held in place so it does not slip off during the incision down on the vas. The vas is exposed and the small section removed.

David M. Davis described a very unique method sometime back, which is the passage of a needle through the skin of the scrotum and back through the same hole, one suture going underneath the vas and the next through the same hole in the skin of the scrotum, in that way looping it and then tying

tightly down over the vas. This is not satisfactory as the vas lumen will reopen again and I have had several of them develop epididymitis.

The placing of the catheter. I certainly wish a lot of the hospital interns could hear that, because I think that has been the experience of all of us doing urology, that we have to get up at night sometimes and go over to straighten affairs out when an intern is unable to get a catheter comfortable for the patient.

I usually employ some local anesthesia after the parts have been shaved and the usual scrubbing is done, such as two per cent metacaine. I prefer metacaine because it is a quick-acting anesthetic and is nontoxic. The catheter is passed into the bladder. The fixation of the catheter I was very glad to hear Dr. Pennington explain. It is another new idea. There are quite a number of those methods of fixing the catheter. We have been employing the method I think we got from Dr. McKenna of Chicago, which is a strip of adhesive about an inch wide and about eight inches long, which you divide about halfway, three inches from one end. The shorter end is passed under the undersurface of the penis, the longer end up through and over the pubis for an extra anchor there, and the penis is wrapped solid to prevent any swelling.

About the care of these patients after a catheter has been inserted, I think it is Bumpus who thinks that most of our reactions following operation are due to infection which is introduced at the time of irrigation of the catheter.

During the last year on my service at the General Hospital, every case that had an indwelling catheter I connected with a T-tube, in which there was a reservoir of 1:5000 acriflavine solution, with a clamp on it. Once or twice a day this clamp was released and the long tube that was connected with the catheter, emptying into a bottle at the side of the bed, was pinched off and two to three ounces of this solution allowed to run into the bladder. Then the tube from the reservoir was pinched off and allowed to drain into the bottle at the bedside. This is a rather simple, inexpensive method of irrigating these catheters by the closed method and there is no chance of introducing outside infection by insertion of a syringe or something of that sort through the end of the catheter.

I am very glad to see this new catheter that Dr. Pennington presented.

DR. J. B. NEIL (Knoxville): Mr. Chairman and Gentlemen: I enjoyed this paper very much. Since this is a more or less generalized discussion of this subject and a presentation of new ideas, I would like to present to you in just a few words a new instrumental technique—a bloodless method for the relief of prostatic obstruction, a transurethral method.

I have some lantern slides that would more graphically illustrate this, but I never thought of discussing this paper when I came over here, so I will use the blackboard.

This operation is performed with a McCarthy visualized prostatic electrotome. It is a bloodless method of prostatic resection. I will illustrate this on the median bar because it is much more simple, but this also applies to lateral lobes as well. First, through the McCarthy instrument, with the cutting current of electricity at about seventy on the dial control, I apply the cutting current of electricity to this bar thoroughly, especially on the posterior ninety degrees of the bar which Frantz has shown is the main part of the obstruction. After applying this current thoroughly, with a modified cutting electrode of my own design I draw a line through the center of the median bar. This electrode does not cut cleanly; it is made so that it makes a good tunnel or trough through the bar. One can carry it down as far as one wants to and then at about one and a half centimeters over here I draw another groove down equal length to the other. Following that, if there is any fear of hemorrhage coming up from below, one can take a roller electrode and apply it in the depth of this wound, which will cut off any blood supply coming from below.

After this a wire loop is introduced into the instrument with the radio tube current, which I find cuts much more cleanly than the spark gap machine. This section is removed with absolutely no hemorrhage. Following that one draws another groove here and takes out another section. This can be done as much as one cares to and there is absolutely no bleeding. The lymphatics are sealed; there is no absorption into the blood stream. These patients have practically no reaction, they have no hemorrhage, and, as I say, they are hardly incapacitated in any way.

This would also apply to lateral lobes.

I think that I have proven this definitely by clinical results as well as microscopic section of this tissue that has been removed following post-mortem, that the cutting current of electricity applied thus does not cause deep slough, secondary hemorrhage, necrosis of tissue, gangrene of tissue, toxemia and death as has been claimed by a good many men in this country. I will state that I have proven this by using this method over 400 times on 200 cases without an operative mortality.

I will say a word on epididymitis. The incidence of epididymitis following operation is so slight that I do not do a vasotomy. The incidence has been only around five per cent and, as the doctor says, thirty-three and a third per cent in his cases.

We know that these glands are all infected, and by cutting into this tissue with a sharp electrode without any control of hemorrhage one opens up the tissues, thus liberating infection into the blood stream, also stirring up this infection which is going up and around the vas, and gives epididymitis.

I enjoyed the doctor's paper very much, and I thank you.

DR. TOM BARRY (Knoxville): Mr. Chairman: Inasmuch as you did not keep the last speaker

on the subject, I ask the same privilege which he took.

In the first place any procedure as merely as passing a catheter on 400 men of prostatic age without a mortality is to my mind absurd.

Dr. Neil has probably forgotten some of his fatalities. He probably forgot the patient whose bladder he ruptured, and also the patients on whom cystostomy was necessitated to control bleeding. Gangrene of the bladder has also occurred in his cases.

DR. NEIL: I said operative mortality.

DR. BARRY: Personally I would consider a bladder which ruptured in the operating room, and the patient dying in a day or so, an operative mortality. Likewise would I consider operative mortalities any patient who had had an operation and does not recover, whether the death be immediate or remote.

The new method which Dr. Neil described differs little from the procedure which has been used at Mayo's for years. Less than a year ago, Dr. Neil reported 123 cases describing a method in which he cooked the prostate without removing any tissue. These were attended with universally satisfactory results, according to his report. After cooking the prostate he now removes the tissue with a cutting loop. Why, with universally satisfactory results in 123 cases removing no tissue, does he advocate this different procedure?

DR. G. MADISON ROBERTS (Chattanooga): Gentlemen, I am going to try to hold my remarks to the main paper of today. The question of vasectomy and the technique that Dr. Pennington gave you are not only important to be done and if it is not done it will be the first thing that will inform you that you have made a grave error.

May I say that I never fail to do a vasectomy that I do not regret it. I operated, two days ago, on a doctor's brother, and at the doctor's request I did not do a vasectomy and I told him I did not think it was necessary, and now he has a bilateral epididymitis.

I want to say that I tried the method of using the towel clamps and used them quite a while, but the way I do them now is simply taking the needle that I am giving the anesthetic with and running through the vas, holding it up against the skin and then make a transverse incision as though I was going to do a blood transfusion, and when the vas is exposed and the white tissue shows, then another curved cutting needle is put under the vas and it is brought up through the same incision and with a small hemostat it is separated and the loop of the vas is brought on the outside. To be sure that I have the vas I take out a section. I have ligated the vas and had afterwards an epididymitis, or at least I thought I had ligated the vas, but I had not done so.

I want to agree with the essayist on his suggestion that all metal catheters should be taken to the river and thrown in. Almost every assortment of instruments that you find sold to the general

practitioner has a metal catheter and why I do not know. They should not ever be used at all because they are always giving trouble. The urologist, the one most capable of using them, never finds many occasions to use them and they are a stick of dynamite in the general practitioner's hands.

I do not like the idea, though, of putting one small strip of adhesive back there at the base of the penis, because if you do that the chances are you are going to have an edema of the retracted prepuce and I think it is necessary to retract the prepuce for two reasons: it is easier to retain the catheter and it keeps down balanitis. If you put a broad piece around the retracted prepuce you will do away with that extra edema. You can do that and the only likely trouble is that certain types of adhesive will prove to be irritating.

I like the doctor's catheter. The only trouble with it is that it is not always available. That particular type of catheter is all right but you can take an ordinary catheter and have a linen ligature on it and have this ligature fastened to the abdomen up through the suprapubic tube, you can pull the catheter through the incision for cleansing purposes and then let it drop back into the bladder.

I want to say that one of the worst mistakes you can make in these preliminary drainages of the bladder is the practice of permitting the nurse to change the drainage from one side of the bed to

the other; unless you caution her she will pick up the entire tube full of infected urine and walk across the room to the other side of the bed and hold it up over the patient and just drain its contents back down into the bladder. That is something that I have seen so many times that I wanted to call your attention to it.

I appreciate the essayist's paper very much.

DR. J. C. PENNINGTON (closing): I wish to thank these gentlemen for discussing my paper, and other things and I am just wondering if Dr. Neil has not solved the problem of preventing epididymitis in 400 cases all in a row by cooking the upper end of the thing before it gets out of the posterior urethra down through the seminal vesicles, and I wonder how the fellow looks when he has got his seminal vesicles cooked out, if that is what happens. They just do not wear catheters without epididymitis over in our part of the country, probably because they have got more bugs over there. We have found it absolutely impossible to put an instrument in the urethra very much without epididymitis unless the vas has been cut.

As Dr. Roberts mentioned about placing the adhesive, we try to place it so loosely that we will not get edema. We do not retract the prepuce unless that is the actual place for it. In other words, we leave it where he has been aware of it all his life and make the adhesive take the changes instead of him.

**104TH ANNUAL MEETING**

**KNOXVILLE**

**HOTEL ANDREW JOHNSON**

**April 13, 14, 15**

**MAKE RESERVATIONS NOW**



## SO-CALLED "SUBACROMIAL BURSITIS"\*

CHAS. F. CLAYTON, JR., M.D. M.Sc. (Med.), Knoxville

THE SO-CALLED subacromial bursitis is not a bursitis, but a lesion in, on, or under the supraspinatus tendon, and may consist of an inflammation, necrosis, calcium deposit, or metamorphosed fat. This condition has been spoken of in literature as osacromiale secundarium or accessorium and periarthrititis humero-scapularis, sprain, fracture of greater tuberosity, painful shoulder, and Codman shoulder.

### HISTORICAL

In 1906 Codman described a symptom-complex which he designated as subacromial bursitis; however, he did not find any calcareous deposits.

In 1907 Painter and Baer both reported cases of calcareous deposits. In the light of present-day knowledge they were probably both in error in stating that the deposits were situated in the walls of the bursa. They excised the entire bursa. The unfortunate part is that many writers have wrongly followed their lead and described the deposits as occurring in the wall of the bursa, and advocated total excision of the subacromial bursa. Codman was the first to point out also that the deposit was not in the bursa, but in or on the supraspinatus tendon. It is important for surgeons to remember that the deposit is not in the bursa, but beneath its floor—it may be in, on, or even under the supraspinatus tendon; otherwise they are liable to miss it at an operation, as Carnett and Bates have amply demonstrated.

### ANATOMY

In the literature there is some confusion, as various writers use the terms "subacromial bursa" and "subdeltoid bursa" as synonymous and interchangeable, whereas others regard them as separate entities. It has been shown that there is only one bursa,

and the general trend is to call it "subacromial." The one of which we speak in this paper is concerned with the deltoid and supraspinatus tendon, while the subcutaneous acromial is not. It is of interest to note that newborn babies do not show any subcutaneous bursa at birth, although the intramuscular bursae are present. Professor Batson in his work on the chick embryo has shown that the synovial sheaths appeared synchronously with the beginning of movement in the chick embryo. He states that this fact, "in the light of what we know about the adult, justifies the *belief* that the sheath appears *because* of the movement." It seems that if this were not the case some of our orthopedic operations would be a complete failure.

In the adult the subacromial bursa is as large as the palm of the hand of the individual in whom it is located, and, except for a small projection beneath the deltoid muscle, lies between the acromion process and the head of the humerus, where it is inaccessible for the complete excision so commonly and wrongly advised by numerous writers.

The supraspinatus is a long, triangular, thick muscle having its origin from the supraspinatus fossa of the scapula and the supraspinatus fascia. The base is toward the median line. The fibers converge lateralward, becoming tendinous, and pass under the acromial process, extending to the major tubercle of the humerus, which is lateral to the bicipital groove.

The action is to lift the upper arm lateralward and roll it slightly outward. The nerve supply is the suprascapularis, which has its origin from the fourth, fifth, and sixth cervical nerves. They are a part of the brachial plexus, which, you will recall, is made up of the fourth, fifth, sixth, seventh, and eighth cervical with the first and second thoracic nerves.

\*Read before the Tennessee State Medical Association, Memphis, April 14, 15, 16, 1936.

### ETIOLOGY

Codman believes the deposits are due to an acute traumatic rupture of a few fibers of the supraspinatus tendon, with the occurrence at the site of rupture of a hematoma in which calcium salts are deposited. It is to be noted however (1) that many intelligent patients cannot recall any history of trauma that might cause tendon rupture; (2) calcareous deposits may be present for years without causing symptoms; and (3) mild trauma may incite symptoms in a previously quiescent deposit.

Carnett's findings agree with Brickner's views that some factor other than trauma, probably a disturbed metabolism, plays part in these cases. Brickner points out that "the deposit occurs only in adults; it occasionally is encountered first in one shoulder, then in the other; in some persons the deposit undergoes absorptions; in others it persists." Although a common affection, many persons using their arms in the same way and subjected to the same influences never develop it; it occurs among the muscular and athletic as well as the sedentary and asthenic; in females as well as in males. No other hypothesis can explain why in some persons, within a day or two after some mild internal violence or an external injury, the roentgenogram will reveal this characteristic deposition of lime salts. I might add that the symptomless development of deposits in the absence of acute trauma is further evidence in favor of metabolic disturbances.

The patients in whom these deposits occur are not of a gouty type. Infection and toxemia are not factors.

### HISTOPATHOLOGY

Stern is of the opinion that when shadows appear and disappear suddenly, with or without treatment, the deposits are metamorphosed fat, which takes on the property of radiopacity and casts shadows comparable with, if not equal to, bone shadows, although no calcium be present in the mass.

Case and Moschowitz found the pathologic lesions to consist of tendonitis, necrosis of tendon, and deposition of calcium, the lat-

ter occurring often in multiple foci even up to 500 or 1,000 in number. They seem to say the lesion is not due to a single acute trauma, but rather to the millionfold occupational traumas of pinching the supraspinatus tendon between the grip of the humeral head and the acromial process or acromioclavicular ligament.

### SYMPTOMS

The symptoms of so-called subacromial bursitis vary somewhat in different patients, but are fairly characteristic. The disease may run an acute, chronic, or intermittent course. In the acute cases the pain may be very excruciating, requiring large doses of morphine for its control. The pain may extend from the neck to the finger tips or from shoulder to elbow. The severest pain is usually not felt at the site of the deposit, but at the insertion of the deltoid or lower deltoid region. The symptoms are those of a more or less extensive brachial neuralgia. Carnett says the most common cause of brachial neuralgia is subacromial bursitis. A roentgenologist should bear this latter statement in mind, and when patients are sent to him with a diagnosis of brachial neuralgia or neuritis with a request to search for toxic focus in teeth, sinuses, or gastrointestinal tract, he will frequently find that a roentgenogram of the shoulder, taken by the proper technique, will reveal calcifying bursitis. Removal of tonsils, infected teeth, or other toxic foci does not benefit neuralgia due to bursitis.

According to Carnett, bursitis neuralgia differs from other forms of brachial neuralgia in two respects: in bursitis there is (1) a sharply localized tender spot just below the acromion process, somewhere between the lesser tuberosity and the outer aspect of the humeral head; there is (2) great restriction of shoulder motion, both actively and passively, particularly in the direction of abduction and internal rotation of the humerus.

In acute bursitis the patients have severe pain from one to three or four weeks. Usually the acute pain then subsides and full recovery commonly occurs, but in a few cases symptoms of a mild form may per-

sist intermittently for years. The severer the attack the more likelihood of disappearance of the deposit, which may undergo spontaneous absorption because of the increased blood supply, so that a roentgenogram taken several weeks after an acute attack may not show any deposit. In twenty-five per cent of the cases Carnett has found a deposit in the symptomless shoulder. The finding of such a deposit in only the symptomless shoulder in a patient who has passed through an acute attack several weeks earlier indicates that originally he had bilateral deposits, with subsequent spontaneous absorption in the painful shoulder.

The milder cases of the so-called acute subacromial bursitis may occur in the absence of a deposit, probably due simply to an inflammation in the supraspinatus tendon. In a small percentage of such cases with prolonged symptoms a deposit may occur subsequently, as has been shown.

The chronic cases may pursue a mild course from the start, or, exceptionally, they may follow on the subsidence of an acute attack.

The symptoms which continue many years may be simply those of a stiff and painful shoulder; abduction and internal rotation may be restricted. The restriction in acute cases is due to pain and muscle spasm, while in chronic cases it is due to contractures of muscles and ligaments from prolonged holding of the arm to the side. The claim that restricted motion in the chronic cases is due to adhesions within the bursa was not borne out by Carnett and Bates in their operative findings.

In many of the chronic cases the range of shoulder motion may be complete, but painful during abduction through the arc running from seventy-five to ninety-five degrees, owing to compression of the sensitive deposit region as it passes under the acromial or acromioclavicular ligament. This area moves as the humerus is rotated outward or inward. This enables one to predict which roentgenogram will show the deposit better.

Some of the chronic cases simulate

chronic arthritis, but in the latter there is tenderness of the entire circumference of the head of the humerus, whereas in bursitis the tenderness is limited to a definite area smaller than a twenty-five-cent piece at the



Mrs. R. C., age twenty-nine years, W., November 26, 1934. Wide abduction under morphine maintained for seventy-two hours, all pain disappeared. Bilateral.



front of the humerus just below the acromion at the site of the deposit.

### DIAGNOSIS

The so-called subacromial bursitis neuralgia must be differentiated from brachial neuralgia from other causes, such as traumatism, fracture, displacement, and occupation; from arthritis of the upper spine, cervical rib, tumor, aneurysm, costal periostitis, angina pectoris, meningeal or cord disease, small punctured wounds about the wrist, forearm, and arm; from alcoholism, anemia, diabetes, nephritis, beriberi, pellagra, typhoid; and from the toxemia of pregnancy, drugs, tobacco, the various metals, gases, and infection.

Those which must be considered most commonly in the differential diagnosis are cervical arthritis and cervical rib.

### TREATMENT

The treatment of the so-called subacromial bursitis may be either medical or surgical. Patients who object to a scar on the upper arm usually elect medical treatment. This consists of putting the patient to bed, applying a splint to the back of the forearm, and tying each end of the splint with a loop over the railing at the head of the bed. The position of the patient's body usually acts as sufficient extension, although placing a block under the legs at the head of the bed assures it. A light dose of morphine is given the first night to procure relaxation, but not enough to absolutely remove the pain for fear of letting the arm "go to sleep." In twelve to twenty-four hours the spasm relaxes, adhesions yield, the tuberosity passes under the acromion, and the arm becomes abducted and externally rotated and is more comfortable. In a day or two remove the splint and simply tie a bandage loosely around the wrist and to the head of the bed to remind the patient not to lower the arm. You get the patient up daily and begin the stooping exercises, which consist of standing erect, arms extended over the head, and bending at waist, keeping your legs stiff and trying to touch the floor with your finger tips. Keep the patient in bed until he can freely move

his arm about in any direction above his head. This is usually after one or two weeks. After you discharge him, he should continue his stooping exercises, and for a few weeks sleep at night with his arm in the hammock position.

If a patient cannot rest in bed for a week or two some physicians use diathermy, oth-



Mr. S. G., age thirty-seven years, W., December 3, 1934. No history.



Mr. D. S., age thirty-six years, W., December 24, 1934. Spontaneous onset of shoulder pain. Surgical removal, complete relief.

ers prefer only the stooping exercises, and they seem to recover just as quickly. There is great variation in the degree of severity of symptoms and in the period of disability. Even the most severe cases recover with or without treatment in about two years.

#### OPERATIVE TREATMENT

The operation may be done under local or general anesthesia. Local anesthesia does not relax the spasm, and renders it necessary to be more accurate in cutting down directly on the lesion. Local anesthesia does not permit a thorough exploration as does a general anesthetic.

Some patients are obviously poor subjects for local, and others for general anesthesia. Surgical judgment on general principles is needed.

The Codman technique is as follows: The patient is placed on his back on the table, and small sandbags or folded sheets are put under the shoulder blade and corresponding hip. This slightly raises the shoulder. It is well to draw the patient as close to the edge of the table as may be, so that when desired the elbow can be pushed backward below the plane of the table—a maneuver which may be needed to expose the upper part of the bursa—the incision beginning at the tip of the acromion and extending down from two to three inches over the bicipital groove. The fibers of the deltoid are separated down to the bursa. If one cannot feel the groove before making the incision, one can always determine its position by palpitation in the wound after the deltoid has been incised. Codman states that it is well to do this in every case, for often the exact location of the deposit can be made previously by roentgenogram, and one can readily locate the subscapularis and supraspinatus if the groove is determined. Sometimes the floor of the bursa does not show sufficient indication of the deposit to guide the surgeon. In such a case the tip of either tuberosity may be readily determined with the point of the knife, and the tendon incised just above it. When a little of the white deposit appears, the incision can be enlarged in the line of the fibers of

the supraspinatus or subscapularis, as the case may be.

In order to determine the position of the bicipital groove, one may take it as a good rule that when the elbow is flexed at a right angle, and the posterior part of the elbow put down on the table at the side of the patient so that the axis of the forearm stands directly vertical to the table, the bicipital groove will be at the most anterior portion of the prominence caused by the head of the humerus. From this point, rotation of the forearm either way brings the tendons into view.

Assuming now that we have reached the supraspinatus tendon, upon incision the deposit may be soft or hard or a milky fluid. Having removed with a curette the deposit, wipe the cavity out, but do not attempt to sew up the incision in the tendon or in the bursa. Close the muscle with a few loose catgut ligatures. The skin is closed as in any other surgical wound. No drainage.

#### POSTOPERATIVE TREATMENT

The arm is carried in a sling for a week to ten days. At this time he can use the arm quite well, and for the next two weeks the stooping exercise is prescribed. In from three to six weeks the patient should be well.

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### DISCUSSION

DR. ROBERT R. BROWN (Nashville): Mr. Chairman and Gentlemen: I think it is very timely that Dr. Clayton has brought this paper to us. The title of it is enough to indicate to you the uncertainty about the numerous lesions or disabilities that affect the shoulder, the so-called subacromial bursitis. I think we have been inclined to call everything that happened to the shoulder, other than fractures, subacromial bursitis, similar to the way that we used to call everything that occurred in the lower part of the back sacroiliac strain.

I think the work of Anderson, largely stimulated by Codman's observation, has helped to teach us a great deal about these conditions of the shoulder. Anderson in the Harvard Medical School dissected the shoulder to determine lesions about the shoulder; he did 100 cases, and in thirty-nine per cent of them found some injury to or involvement of the supraspinatus tendon. We realize, of course, that this is unusually high, and it is probably caused by the fact that these patients, as you would expect, were mostly old people.

I feel that we might classify these ailments a little bit in order to determine the type of treatment. First, I like to think of bursitis as an acute process that comes up in the shoulder with localized tenderness over the bursa that is quite painful, oftentimes morphine does not relieve it, that runs its course, usually, in four or five days, becomes very much less painful, and in ten days or two weeks is oftentimes entirely relieved. In this type of case I am sure all of you have seen the striking results of relief of pain that come from a small dose of X-ray given over the shoulder.

The second group are those of injuries to the supraspinatus tendon. I think there is a definite history of injury in these followed by a painful condition of the shoulder. These shoulders have been treated lightly in the past. However, they are very disabled shoulders, and I think with a definite rupture of the tendon there is a very classical picture and the diagnosis should be made. For instance, on resting the shoulder on a crutch or something to take away the pull of the trapezius

muscle, looking at the patient from the back and asking him to abduct the arm, there is a definite lack of pull of the supraspinatus muscle. In addition to this, there is a definite lack of the ability to start abduction. The supraspinatus muscle is the one that starts the abduction up to a certain point, it is carried on then by the deltoid. There is a finding of tenderness in the region of the tendon or directly over the head of the humerus, and a definite click or thump is felt at a certain point in the abduction; that is very painful, and when you get beyond that point on up, then it is less painful, but each time on moving the arm up and down this definite thud can be felt, oftentimes heard, as the injured portion of the tendon passes under the acromial process.

The third group is the arthritides of the shoulder. Any limited motion of the shoulder, especially of rotary motion of the shoulder, to my mind, means an arthritis or peri-arthritis rather than a bursitis or an injury to the supraspinatus tendon. With bursitis and the supraspinatus tendon injuries or pathology in these two places, there are certain movements that are painful, and there are certain movements that are limited, but if you study them closely, most of these are limited because of a muscle spasm rather than because of any definite fixation about the shoulder. Consequently, then, if you find definite fixation other than that attributed to the muscle spasm, I feel certain that most of these cases will fall into the class of a definite arthritis.

Another disturbing element about these conditions is that all three conditions produce a so-called neuritis or pain in the region of the shoulder, referred up into the neck and down the arm to the fingers and hand. It is different from a true neuritis, where there is some pathology in the brachial plexus proper, because of the fact that it is inconstant; in other words, the pain might be more prominent over the radial nerve at this particular time, and a day or two later over the ulnar nerve, whereas in a definite neuritis the evidence of it, as in the anesthesia or numbness complained of, and the pain, is more constant.

I feel that we are making rapid strides in differentiating these conditions and being able to offer this condition a definite plan of treatment rather than calling them all, as has been done in the past, simply a bursitis of the shoulder.

Time will not permit going into the treatment of these different conditions. Dr. Clayton has outlined the classical incision and treatment for bursitis or the deposit along the tendon sheath.

I have nothing to disagree with Dr. Clayton about other than the possible evaluation he gives to the calcium deposits as shown in the X-ray. I feel that this is part of the symptoms of the disease rather than the trouble itself, and the deposit oftentimes disappears without surgical removal, and finding the deposit is not essentially a reason for removal of the bursa.



DR. E. J. LIPSCOMB (Memphis): I have enjoyed Dr. Clayton's paper.

The conclusions of Dr. Clayton's investigations of the so-called subacromial bursitis are well borne out in the findings of Drs. Codman, Carnett, Bates, and others, namely, that the condition is one of a subacute or chronic tenosynovitis of the supraspinatus tendon and perhaps positions of the deltoid attachment. The anatomical position of the supraspinatus tendon and its relation to the acromion process would enhance the supposition that the condition is influenced by trauma, or at least by irritation.

The trauma would not necessarily be of such consequence as to be even noticed or recalled by the patient, but more likely of a trivial but frequently repeated action such as would be expected in the occupation of a fireman, carpenter, or builders, men who carry timbers on their shoulders; recreation games such as golf, handball, boxing, etc.; in other words, frequent repetitions of muscle action causing a mechanical strain upon the tendon fibers in this region, bringing about inflammatory changes and degenerative changes in or about the tendon sheath. Unquestionably mild repeated irritations must of necessity play a part in the etiology of this condition. After all is said, it is the most plausible explanation for the condition.

The differential diagnosis from other conditions causing pain in the shoulder girdle and arm is very important and can be made certain only by a process of elimination. A neuritis in some part of the brachial plexus due to infection in the teeth, sinuses, or tonsils is such a common thing and occurs so much more often than this condition that neuritis due to infection must be ruled out first.

Subacromial bursitis quite often exists without symptoms and is accidentally discovered during the process of an X-ray examination. It may be present and have nothing to do with the cause of the patient's pain. Other things being ruled out, I think that the most constant diagnostic points are:

1. The point of extreme tenderness over the region of the tendon sheath.
2. The pain about the deltoid attachment.

*Treatment.*—The tendency of this condition to become chronic or at least to recur, its tendency to show up in the opposite shoulder at later dates,

makes the conservative treatment the one of choice. During the acute stage, elevation and abduction of the arm, with sedatives for the pain, hasten the recovery. Diathermy, heat, and massage with exercises described by Dr. Clayton form the best follow-up treatment. It has been my observation that real diathermy given over a long period of time will actually absorb these deposits. The new developments in radiotherapy heat will not do this, and only serve as internal heat.

Should surgery be resorted to, it necessarily will require the most careful technic of dissection to avoid too much scar tissue and adhesions in the field of operation. Infection in such a surgical field might prove most disastrous.

DR. R. W. BILLINGTON (Nashville): Mr. Chairman, there are two points I would like to mention particularly in connection with these painful shoulders. One is that condition which has been comparatively recently identified as a pathological entity as a cause for painful shoulders, a tenosynovitis of the long head of the biceps tendon sheath. As you know, the long head of the biceps goes through a rather long canal in the bicipital groove, and it has been definitely shown that this tendon sliding through this rather long sheath or canal is subject to definite tenosynovitis. Let us think of that as one of the causes, along with injuries to the tendon of the supraspinatus and the bursitis of the subdeltoid and subacromial bursa.

The other point concerns treatment. I want to emphasize one thing that has been of more help to me in the treatment of these painful shoulders than anything, and that is the application of an abduction splint. Put this arm at rest in the abducted position, sixty to ninety degrees abduction, and relax the pull and drag on the soft tissues on the outer and anterior aspects of the shoulder joint, and use all these other procedures that the doctor mentioned, and you will get them well in the shortest possible time. A week to two weeks of immobilization in the abducted position will do more than all the rest.

DR. CHARLES F. CLAYTON (closing): I do not have any more to add to the paper. I want to thank the doctors very kindly for their discussion.

## HOTEL ANDREW JOHNSON KNOXVILLE

State Meeting

April 13, 14, 15

## A NEW DEPARTURE IN HEARING AIDS

FRANK L. ALLOWAY, M.D., Kingsport

MUCH CONFUSION and ambiguity exist as to the value of the hearing aids now on the market. I wish to present to you a new idea in hearing prosthesis which depends upon a high-velocity sound-carrying substance contained in a funnel-shaped instrument. It is called a High-Velocity Earphone for want of a better name. This will be described later.

The history of hearing aids dates back as far as the time of Asclepiades, 96 B.C., so it is very evident that deafness was appreciated to be a real handicap, even in those days, enough in fact to need some sort of help. The first hearing aid on record was a form of ear trumpet.

The ear trumpet in some form was the aid used until the invention of the microphone for use in telephones. This principle used in an apparatus for the deaf has stimulated an interest in this field. Astonishing discoveries in other fields have been made, different pathways for the conduction of energy have been used, but we are still supposed to depend upon the waves of the air for the conduction of sound waves.

The profession is awakening to the fact that, while we have in many lines, such as the eye, brought things to a very fine point, the thousands of deaf and deficient in hearing cannot be cured by the ordinary means at the command of the aurist.

You may ask, When is a person deaf, or in other words, When does a patient require an artificial aid? It is Politzer's opinion that when a person does not hear a spoken voice with the aid of the lips at a distance greater than one and one-half meters some assistance is necessary. It is evident that the degree of hearing which one requires depends on the profession, work, or environment of the patient. Edison is said to have been able to concentrate

upon his problems because of his deafness. A teacher in a school naturally needs better hearing than an artist, or a shoemaker, or a stenographer who depends upon her profession for her living and whose employer dictates with his head turned from her, and there is the mother who is beginning to miss the sound of her children's voices.

In determining the best artificial aid one should advise for a certain patient it is necessary to know whether the deafness is due to trouble in the sound-conducting apparatus or in the sound-perceptive apparatus; if due to the former, whether low tones are cut off or only the high, with the medium voice tones still existing, a hearing test as accurate as possible should be made.

Mechanical aids can be classed as internal and external. The internal heretofore were only applicable where there was a drum defect and a movable stapes, but this is not true when the high-velocity earphone is used, as they are in no sense an artificial eardrum but a true sound-conducting phone. Artificial drums have been used for some years. Yearsly, in 1848, suggested small balls of cotton placed in the canal. Toynbee, in 1852, constructed a small disk of rubber to which was attached a silver stem. Many modifications of Toynbee's drum have been brought out. Even gold drums were used by Mueller in the ear of an American heiress.

Unfortunately, such aids too often cause irritation in the middle ear, and a discharge occurs. This is not true of the tenite earphone, which has been worn for three months without irritation when covered as it is with oil. There are several rubber drums upon the market duly advertised as curing all forms of deafness. There is no doubt that the person who invented this particular type may have been helped, as some conditions are greatly improved by them. It must be remembered that a little improvement means a great comfort to some people.

\*Read before the Tennessee Academy of Ophthalmology and Otolaryngology, Memphis, April 14, 1936.

Maurer suggested a rubber bag filled with water, but this gives at the most only four times the sound velocity of air. Besides the rubber soon gives way and is an irritant to the canal.

In this new ear prosthesis we have a funnel-shaped instrument made of tenite, a product of the Eastman Corporation. This tenite is very light in weight, very durable, and will not become rough or irritate the canal wall when covered with oil. It is in itself a sound carrier.

The H-V earphone is made of flesh-colored tenite, molded to fit the ear and having a thin durable vibrating drum at each end. This encloses a copper semisolid with an air bubble at the outside drum. When in place it is almost invisible, thus overcoming the pride and sensitiveness in the average deaf patient who dreads wearing a conspicuous earphone.

The principle upon which it works is that this copper solution has a sound velocity of 15,000, or roughly fifteen times that of air. The air bubble near the large drum softens the vibration of the external drum in case of loud noise. The sound waves strike the large outside drum, are intensified and crowded to the small drum, then to the tympanic membrane, through the oil in the end of the phone.

Another factor is that the deepest musical tone causes about forty-eight sound oscillations per second and the higher tones up to 4,000 sound oscillations per second. Thus many millions of sound vibrations will be carried directly to the pathologically bound drum and bones of the middle ear. This soft vibratory massage oftentimes is of great benefit to this type of deaf person.

When placing the phone in the ear, a small drop of mineral oil is placed on the small end and the instrument is introduced with the slant downward so as to fit the drum. It is to be removed and cleaned each night. Improvement is not noted until the phone has been worn for a certain time. I have ten patients wearing this phone over a period of some months, and they seem to have derived considerable benefit as to hearing as well as finding it of considerable therapeutic value. The prosthesis was

found to be completely valueless in patients who had an injury or disease of the acoustic nerve. Head noises seem to be helped in three of the cases, but this may have been psychological. However, I do think the constant vibratory massage is of benefit in many cases.

#### REFERENCES

- Dr. Paul E. Sabine: *Laryngoscope*, 1921.  
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Dr. S. Maurer: *Wien. med. Wchnschr.* 85: 932, August 17, 1935.  
Search of the United States patent records by Clarence A. O'Brien, Washington, D. C.

#### DISCUSSION

DR. G. H. BERRYHILL (Jackson): The commercialization by many companies of various types and makes of hearing devices has made it so that in the more recent months the otologist is being confronted often with the problem of giving advice as to the value of different hearing devices. The apparatus which Dr. Alloway has brought to our attention is a new thing to me, and it would be impossible for me to give any intelligent discussion on this specific device.

There are many things to take into consideration when the use of a hearing device is under consideration, such as facts concerning speech and its interpretation, types of deafness, characteristics of hearing aids, and the reactions of deafened persons.

It is my opinion that otologists have been negligent in giving constructive advice to patients in regard to aid of hearing instruments. The question that enters my mind is, Can we scientifically advise patients as to the effectiveness of hearing aids? Ordinarily, we tell them to try two or three sets and determine for themselves which gives the best service.

All cases should be worked out along some definite system like Dr. Fletcher of the Bell Telephone Laboratories has devised before competent advice can be given as to the proper instrument to use. Dr. Fletcher has divided the audiometer chart above and below the threshold of hearing into decibels or sensation units. This chart or auditory sensation area below the threshold of hearing is further divided into four parts: Class A goes down to 40 Db.; Class B, between 40 and 80 Db.; Class C, between 80 and 110 Db.; and Class D, below 110 Db.

Any person having Class A audiogram will not receive sufficient help from a hearing aid to justify using it. The audiograms falling in Class B should be divided in three subdivisions: 1-B if it is approximately horizontal; 2-B if it slopes downward with the higher tones; and 3-B if it slopes upward with the higher tones. Class 1-B gets unusual satisfaction from the use of these various



instruments. Class 2-B, which more often is due to nerve deafness, will require carefully designed hearing aids in order to get any degree of satisfaction. Class 3-B does not occur very often, but can always get satisfactory results the same as in Class 1-B. Those falling in Class C require more powerful aids, which at present can only be helped by using vacuum tube equipment. These sets are very bulky and very expensive. Those in Class D cannot be helped by any equipment now available.

The most satisfactory results are obtained in those cases in which: first, the hearing loss is a uniform one; second, the sound powers involved are such that they will not hurt the ear; and third, the amplification of the hearing aid is uniform. The first, of course, is seldom true; the second is

true only in moderate degrees of deafness; and the third is true only in specially designed sets.

The apparatus which Dr. Alloway has discussed will unquestionably be of benefit to many, but I can think of no way to determine just which ones it would be acceptable to other than have the patient try it out and determine for himself.

There is another idea which is growing rapidly in the minds of the hard of hearing, and that is scientific lip reading. Already in the larger places there are many schools where one can obtain this training and soon, I think, there will be teachers where almost everyone in the country can have access to the opportunity of learning this valuable assistance. The otologists should familiarize themselves with these schools and instruct their patients as to the value of the work and where they may be able to obtain this training.

**DO NOT FORGET THE**

**ANNUAL MEETING**

**OF THE**

**TENNESSEE STATE MEDICAL**

**ASSOCIATION**

**KNOXVILLE**

**April 13, 14, 15**

**HOTEL ANDREW JOHNSON—HEADQUARTERS**

# THE JOURNAL

OF THE

## TENNESSEE STATE MEDICAL ASSOCIATION

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H. H. SHOULDERS, M.D., Editor and Secretary

MARCH, 1937

## EDITORIAL

### A STATEMENT BY DR. W. L. WILLIAMSON, PRESIDENT

All available information clearly indicates that the largest attendance Knoxville has ever recorded at a state meeting will be April 13, 14, and 15, the one hundred fourth anniversary of our State Medical Association.

More than ever before the doctors of Tennessee are realizing the advantages and importance of their own state organization. The County Medical Society, the State Association, and the American Medical Association are the only organizations representing all doctors. In these organizations only we all have a voice.

There has never been a time when it was so necessary that we get together and acquaint ourselves with many plans and activities which may affect our profession. This is a formative period in our history. In the past we have solved many problems. United and with intelligent cooperation, we can solve the problems which may develop in the future.

There will be an excellent scientific program prepared by our committee. There will be something of interest in your field of work.

We expect many of our doctors who have just finished our "State Postgraduate Course in Obstetrics." They can tell you what a wonderful success it has been in their section.

Knoxville and the Smoky Mountain region will be expecting you.

### THE MEETING OF THE TENNESSEE STATE MEDICAL ASSOCIATION

The next meeting of the Tennessee State Medical Association takes place in Knoxville, Tennessee, April 13, 14, 15, 1937.

The headquarters will be at the Hotel Andrew Johnson.

The local committee on arrangements is as follows: E. R. Zemp, Chairman; H. L. Pope, M. S. Roberts, H. C. Long, Jesse C. Hill.

This committee is active and has already made plans for the accommodation of the association.

The program committee has a program complete except for a few details. A tentative program appears in this issue. An official program will be mailed each member well in advance of the meeting.

As has been the case for some years now, there still is urgent need for an effective, cohesive organization of the medical profession. The threat of state medicine still hangs over our heads. The agitation of the question by propagandists is still active.

We are in position to assure the membership that this meeting will be well worth while. The scientific program will be unexcelled by any state meeting. Knoxville always entertains the association handsomely. The national park near Knoxville should be beautiful in the middle of April.

Let us all make plans now to be in Knoxville, April 13, 14, 15.

### THE POSTGRADUATE COURSE IN OBSTETRICS

All of us are aware of the need for postgraduate work. We are also aware of the difficulty and tremendous cost involved when a doctor leaves his practice and goes to some institution for postgraduate work.

For some years now we have all tried to think up some plan by which postgraduate work could be carried on, within the association, in addition to the postgraduate educational work that is done by state meet-

ings, local county meetings, and by the JOURNAL throughout the year.

We are all aware of the necessity for the work to be scheduled in such a way as to be of the greatest possible benefit to the practitioner.

Notwithstanding the fact the maternal death rate in Tennessee is not above the average for the country as a whole, there was and is need for postgraduate work in obstetrics.

For more than a year now plans have been in the process of formation by which postgraduate work in obstetrics could be carried to the practitioners in their respective communities, thus relieving them of the tremendous costs involved in getting such work elsewhere.

The postgraduate work is now in progress. As a result of careful planning and good care in the selection of instructor and organizer the course is meeting with hearty approval in the district first served.

The work is under the auspices of the Tennessee State Medical Association. A special committee was formed to direct the work. It is composed of the following: James R. Reinberger, Chairman, Memphis; Franklin B. Bogart, Chattanooga; O. W. Hyman, Memphis; John M. Lee, Nashville; J. O. Manier, Nashville; Otis S. Warr, Memphis; and John B. Youmans, Nashville.

Some letters that have been received by Dr. Williamson, president, and Dr. Reinberger, chairman of the committee, are reproduced here for the purpose of indicating the reaction of the profession to the course.

It is our hope that this is the beginning of this type of postgraduate activity in Tennessee. It is one of the methods by which the organized profession of the state is endeavoring to improve the medical service received by all the people in the state. This statement is not meant to convey the idea that the services they have been getting are poor. To the contrary it is rather meant to convey the idea that we are progressive in the sense that we want to bring into popular use every advance in medical science. The letters follow:

February 18, 1937.

Dr. W. L. Williamson,  
Memphis, Tennessee.

Dear Doctor:

I want to express my appreciation to all those who have contributed their time and efforts to providing postgraduate instructions in obstetrics to the members of the Tennessee State Medical Association.

I think that this is the biggest thing the association has ever done for the profession. It is a step forward and all those responsible for initiating this program will always have something for which they can pat themselves on the back.

I attempted three years ago to organize a postgraduate group here, but failed to get the necessary cooperation to put it over.

We get at home just what we would at one of the big teaching centers. I do not believe a better man for this work could have been selected. Dr. Whitacre gives his course in a clear, concise way and I want to say that I am more than pleased with him.

I have talked to most everyone in the group and have heard nothing but admiration. In fact, he has done his part so well that they are now asking for a course in internal medicine.

It has been a pleasure to work with Dr. Whitacre and I know the other groups will be pleased with his methods of instruction.

Very truly yours,

(Signed) JOHN E. POWERS, M.D.,

*Vice-President for West Tennessee.*

February 24, 1937.

Dr. W. L. Williamson,  
Memphis, Tennessee.

Dear Doctor:

Since our postgraduate course is nearing its end, our group of McNairy County wishes to express to you our very deepest appreciation for your cooperation with the powers that be in making this course possible. We feel like had it not been for your untiring efforts we would not have had this privilege. Dr. Whitacre has certainly put this course on in a very fine way and in such a way that we have derived knowledge of obstetrics which we never would have gotten with the average instructor.



Again our group wishes to thank you.

Not only do we thank you for the above, but we do wish to congratulate you as president of the Tennessee State Medical Association. We cannot recall where any president has put forth any such efforts as you have as our president. The medical profession of the state at large shall always remember you for your splendid work. We trust that in the near future other similar courses may be possible for the rural practitioner.

Yours truly,  
(Signed) E. M. SMITH,  
*Secretary, McNairy County Group.*

February 25, 1937.

Dr. James R. Reinberger,  
Chairman of the Committee on Postgraduate Instruction in Obstetrics.

Dear Sir:

The series of postgraduate lectures by Dr. Frank E. Whitacre, lecturer on obstetrics, will be complete in Jackson after two more lectures. The class here desires to inform you of their reaction to this first series of lectures.

They have been highly instructive and progressively interesting. In addition to our regular practice, we have carried a heavy burden of work in serving an average number of one thousand flood refugees sent here by the Red Cross. In spite of this the attendance has not suffered, as the record will show, and the enthusiastic appreciation of the series has been increasingly notable at each meeting.

In preparing these lectures Dr. Whitacre has leaned to the practical side of the subject, but not to the exclusion of the fundamental teaching upon which the practical is built. His demonstrations of operative technique have been especially instructive, characterized by skill and the ability to impress the finer points learned by experience which so often determines the ease or difficulty of a given operation.

Dr. Whitacre is an affable, courteous gentleman, whom it is a pleasure to know, and a splendid teacher. His voice is pleasing and the presentation of his subject is made in a familiar conversational style, in

concise simple language with every word chosen to convey the exact meaning he wishes to express.

We do not consider it amiss to mention that Dr. Whitacre has obligingly accepted invitations to lecture to clubs and other lay organizations in this community, thus spreading a knowledge of prenatal hygiene among the people of our city.

In closing permit us to suggest that you inform the several organizations interested in promoting this service, namely, the Commonwealth Fund, New York; Tennessee State Department of Health, Nashville; State Medical Society, Nashville; University of Tennessee, Knoxville; Vanderbilt University, Nashville; that the profession in Jackson heartily endorses this movement and looks forward with pleasure to having opportunity of joining other classes of this character on other subjects.

Respectfully,

HERMON HAWKINS, M.D., Jackson;  
G. A. BRANDON, M.D., Lexington;  
H. E. WHITLOCK, M.D., Bemis;

*Committee.*

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#### REPORT OF THE AMERICAN FOUNDATION STUDIES IN GOVERNMENT

Many doctors in Tennessee will remember that the above-named organization conducted inquiries concerning medical services in the United States.

It had become increasingly apparent that many organizations have been set up for the purpose of promoting some plan or scheme for the alteration of medical services.

Judging from statements in the literature it was the purpose of this organization to make inquiries and ascertain what the facts are and then give them to the public. It was not supposed to borrow ideas from some European country and make itself into a propaganda outfit.

We have received information to the effect that the reports have been compiled and analyzed and that they compose two volumes of some fifteen hundred pages.

We have no definite information as to what these volumes contain, but we look forward, with keen interest, to a study of

them when they arrive sometime early in April.

#### TENTATIVE SCIENTIFIC PROGRAM OF THE TENNESSEE STATE MEDICAL ASSOCIATION

The following is a list of papers and addresses that will appear on the program of the Tennessee State Medical Association.

There is also a list of papers to appear on the program of the Tennessee Academy of Ophthalmology and Otolaryngology, which convenes in Knoxville, Monday, April 12, 1937, and the program of the Tennessee State Pediatric Association, which convenes in Knoxville, Tuesday, April 13, 1937.

It will be understood that the papers on the general program will not appear on the official program in the order in which they appear here.

Dr. W. L. Williamson, Memphis, presidential address.

Dr. Charles Gordon Heyd, New York City, president, American Medical Association. Guest speaker.

Dr. Norman L. Higinbotham, New York City, a special address, "Injection Treatment of Hernia." Guest speaker.

Dr. Louis A. Buie, Rochester, Minnesota, a special address, "Diseases of the Anus and Rectum: Diagnostic and Therapeutic Aspects." Guest speaker.

Dr. Frank E. Whitacre, Memphis, a special address, "Outline and Résumé of Work Done and to Be Done in Postgraduate Obstetrical Course." Guest speaker.

The guest speaker following the dinner Wednesday evening will be the Honorable Hammond Fowler, ex-senator, publisher, attorney, and financier of Rockwood, Tennessee.

"Pelvic Pain in the Female," Dr. J. G. Moss, Johnson City.

"The Treatment of Pyelitis During Pregnancy," Dr. G. A. Williamson, Knoxville.

"The Management of Home Deliveries," Dr. Harry Jenkins, Knoxville.

"The Commoner Clinical Allergies," Dr. R. B. Wood, Knoxville.

"A Study of Five Hundred and Fifty Cases of Chronic Cystic, Eroded Cervicitis and Hyperplastic Endometritis, Meno-

pausal Menorrhagia, Slides," Dr. Edward T. Newell, Chattanooga.

"Obstetrical Jurisprudence," Dr. H. P. Hewitt, Chattanooga.

"Angina Pectoris and Coronary Occlusion, Diagnosis and Treatment," Dr. P. H. Levinson, Chattanooga.

"The Abnormal Child," Dr. W. D. Anderson, Chattanooga.

"Perinephritic Abscess, with Review of Local Cases," Dr. Elkin L. Rippy, Nashville.

"The Surgical Treatment of Certain Types of Heart Conditions," Dr. Alfred Blalock, Nashville.

"Results Obtained in About Three Hundred Operations During the Past Ten Years in Vanderbilt Hospital on Patients More Than Seventy Years of Age," Dr. Barney Brooks, Nashville.

"Syphilis," Dr. E. Gurney Clark, Nashville.

"Ligation of Sapheno-Femoral Junction with Retrograde Sclerosing Injections for Varicose Veins," Drs. W. D. Haggard and J. W. Kirtley, Jr., Nashville.

"Endocrine Disturbances Affecting Menstruation," Dr. John C. Burch, Nashville.

"Acute Mastoiditis: Its Recognition and Management," Dr. W. G. Kennon, Nashville.

"Epilepsy," Dr. Carrol C. Turner, Memphis.

"Relationship of Water Balance to Intracranial Pressure," Drs. Nicholas Gotten and Otis S. Warr, Memphis.

"Therapeutic Abortion, Indications and Technique," Dr. J. C. Ayres, Memphis.

"Hypertensive Disease," Dr. R. E. Ching, Memphis.

"The Treatment of Malaria," Dr. W. C. Colbert, Memphis.

"Radium—An Indispensable Means of Therapy in Its Field of Service to Humanity," Dr. Jere L. Crook, Jackson.

"Diagnosis and Treatment of the Commoner Skin Diseases," Dr. E. R. Hall, Memphis.

"The Increasing Responsibility of the Physician to the Infant and Small Child," Dr. F. Tom Mitchell, Memphis.

"Treatment of Fractures of the Face,"  
Dr. Robert F. Patterson, Knoxville.

"Fractures, the Few Basic Principles of Treatment," Dr. R. C. Robertson, Chattanooga.

"Gas Gangrene — Its Prevention and Treatment," Dr. Battle Malone, Memphis.

"Trauma and Infection in the Diabetic,"  
Dr. J. S. Read, Nashville.

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*Tennessee Academy of Ophthalmology and  
Otolaryngology, Monday, April 12, 1937,*

10:00 A.M.

"A General Consideration of Defective Hearing and Deafness, with Particular Reference to Etiology." Part 2. Dr. N. E. Hartsook, Johnson City.

"Corneal Transplant," Dr. J. Wesley McKinney, Memphis, Tenn.

"Chronic Purulent Otitis Media and Mastoiditis," Dr. M. M. Cullom, Nashville.

Presentation of Pathological Specimen and New Instruments.

President's Luncheon. Guests of Dr. R. O. Rychener.

*Afternoon Session, 2:00 P.M.*

"Abscess of Larynx with Report of a Case," Dr. Stewart Lawwill, Chattanooga.

"The Process of Refraction," Dr. H. Carroll Smith, Nashville.

"Injection of the Sphenopalatine Ganglion for the Relief of Facial Neuralgia,"  
Dr. C. K. Lewis, Memphis.

To Be Announced.

Election of Officers.

Dinner, 6:00 P.M. Guests of the Knoxville Society of Ophthalmology and Otolaryngology.

President's Message, Dr. R. O. Rychener.

Guest Speaker, Dr. A. D. Ruedemann, Cleveland, Ohio.

Installation of Officers.

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*Tennessee State Pediatric Association,  
Knoxville, Tennessee, April 13, 1937*

Dr. John M. Lee, Nashville, President.

Dr. Walter L. Rucks, Memphis, Vice-President.

Dr. Kinsey M. Buck, Memphis, Secretary-Treasurer.

#### EXECUTIVE COMMITTEE

Dr. Joe T. Smith, Knoxville, Chairman.

Dr. Arthur G. Jacobs, Memphis.

Dr. Owen H. Wilson, Nashville.

9:30 A.M.—Introductory Remarks by the President, Dr. John M. Lee, Nashville.

10:00-12:00—Clinical Session by the Pediatricians of Knoxville. Case Reports and Case Presentations. (Speakers limited to ten minutes.)

12:30 P.M.—Luncheon, Combining the Members of the American Academy of Pediatrics and Members of the Tennessee State Pediatric Society, Honoring Our Guest Speakers.

2:00 P.M.—"Enlargements of the Spleen in Infants and Children with Illustrative Cases," Dr. Alfred A. Walker, Birmingham, Alabama.

3:00 P.M.—"Some Remarks on the Newborn," Dr. L. R. DeBuys, New Orleans, Louisiana.

4:00 P.M.—"A Comparative Study of the Use of Acetarsone and Other Drugs in the Treatment of Syphilis in Children," Dr. Joseph Yampolsky, Atlanta, Georgia.

5:00 P.M.—Short Business Session. Election of Officers.

5:30 P.M.—Reception by the Pediatricians of Knoxville, Honoring the Visiting Pediatricians in the City.

## RESOLUTIONS

### DR. EDWIN AUGUSTUS LONG

October 27, 1936, the Johnson City and Washington County Medical Society lost its oldest active member in the death of Dr. Edwin Augustus Long. He was also the oldest active practitioner of medicine at the time of his death.

Dr. Long was born November 24, 1861, near Athens, Tennessee. He was educated at Athens College, Tennessee, from which institution he graduated in 1887. After graduation he taught mathematics in Warren College, Chuckey, Tennessee, for two years, during which time he also read and studied medicine. He took his medical training in the University of Louisville, Louisville, Kentucky. He graduated from



this institution on March 4, 1891. He came at once to locate for the practice of his profession in Johnson City, Tennessee, where his whole professional life was spent.

Dr. Long was very active and industrious and greatly interested in organized ethical medicine. He was twice made president of the Johnson City and Washington County Medical Society and once elected president of the East Tennessee Medical Society. He was also city physician and city health officer about eight years. He was a member of other medical societies. He was always ready to give helpful advice and encouragement to the younger and newer men who came to Johnson City to locate.

Dr. Long was twice married and to each union two children were born. He gave all his children a college or university education. Dr. Carroll H. Long, our efficient secretary-treasurer, was his father's helper and counselor during the last few years he lived.

In recognition of the above brief review of his work and accomplishments, we, the members of the Johnson City and Washington County Medical Society, in regular monthly meeting assembled, desire to offer the following resolutions:

*Be It Therefore Resolved*, That the Johnson City and Washington County Medical Society deplore the passing of our fellow member.

*Be It Further Resolved*, That we extend his bereaved family our sympathy and condolences.

*And Be It Further Resolved*, That a copy of this preamble and these resolutions be sent to the bereaved family of the deceased, a copy spread upon the records of our society, and a copy sent to the secretary of the Tennessee State Medical Association with a request for publication.

(Signed) W. J. MATTHEWS, M.D.  
G. E. CAMPBELL, M.D.  
E. T. WEST, M.D.

DR. W. M. JOHNSON

The death of Dr. W. M. Johnson removes from the ranks of the medical profession of White County one of the most worthy and honored members. His life was beau-

tiful in its simplicity and devotion to duty. His gentle and tender care of his patients bound them to him with a loyalty beautiful to behold.

He was in truth a chivalrous, courteous gentleman, modest and unassuming in his bearing, neat and tasteful in his dress. He went about his daily tasks scattering sunshine in the homes of sorrow and bringing comfort and ease to many a sufferer.

His life was a benediction and it is with sad hearts that we, the members of the White County Medical Society, bear our testimony to the nobility of his character and the loss which we feel in the death of so valued a member.

*Resolved*, That these resolutions be spread on the minutes of the society and that copies be sent to the members of the family.

Respectfully submitted,

S. E. GAINES, *Chairman*,  
A. F. RICHARDS,  
B. L. UPCHURCH.

White County Medical Society, Sparta,  
Tennessee, February 11, 1937.

## NEWS NOTES AND COMMENTS

Dr. C. C. Stockard, of Lawrenceburg, who has been sick for several weeks, has recovered and was able to attend the meeting of the Five-County Medical Society in February.

Dr. Thorvald Madsen, who has been selected to deliver the Abraham Flexner lectures at the School of Medicine of Vanderbilt University, will be in residence during the months of March and April, 1937. The program of lectures which Dr. Madsen will deliver is as follows:

March 10—"Control of Venereal Diseases in Denmark" (with special reference to syphilis).

March 15—"Mechanism of Bacterial Infection."

March 19—"Epidemiology of Tuberculosis."

March 24—"The Influence of Seasons on Infections."

March 29—"Whooping Cough."

## WOMAN'S AUXILIARY

President.....Mrs. Theodore Morford  
Nashville  
President-elect.....Mrs. W. T. Black  
Memphis  
Press and Publicity.....Mrs. Oscar Nelson  
Nashville

The Knox County Auxiliary has presented the following plans for the state meeting to be held in Knoxville on April 13, 14, and 15. The hope is expressed that the program will be an incentive for many of the wives of Tennessee doctors to be their guests at that time.

### *Tuesday, April 13*

2:00 P.M.—Preconvention Board Meeting, Andrew Johnson Hotel.

6:00 P.M.—Board Dinner at Cherokee Country Club.

8:30 P.M.—Reception at Mrs. Herbert Acuff's Home.

### *Wednesday, April 14*

8:30 A.M.—Cars Leave Andrew Johnson Hotel for Business Meeting and Luncheon at Gatlinburg Followed by Scenic Drive.

8:00 P.M.—Dinner at Cherokee Country Club. Tickets \$1.25.

### *Thursday, April 15*

Postconvention Board Meeting. Drive to Norris Dam.

Will the ladies who are planning to attend on Wednesday only please note that the cars will leave the hotel at 8:30 A.M. and plan to be on time?

### *Anderson County*

The January meeting of the Anderson County Medical Auxiliary was held at the home of Mrs. Trent Huff in Clinton. Mrs. Thomas Jennings was elected president; Mrs. Horton DuBard, vice-president; and Mrs. W. B. Barton, secretary and treasurer. The auxiliary has continued to grow since its organization in 1935, and now has a membership of ten. A loan closet has been equipped for the use of the health unit and the doctors in the county. Each year the

auxiliary places *Hygeia* in at least three of the county schools. Besides regular business meetings, various social meetings have been enjoyed and a fine fellowship exists.

### *Rutherford and Cannon Counties*

The Woman's Auxiliary to the Stones River Academy of Medicine met at the home of the president, Mrs. Matt Murfree, with Mrs. G. W. Croswaite as joint hostess. Miss Mary Hall gave an historical sketch showing the important place of women in medicine from the earliest ages. Following the business session the hostesses served a salad course.

### *Shelby County*

The Shelby County Auxiliary has had a busy month. The recent flood disaster found them ready to work unsparingly to aid the Red Cross, especially in work for the refugees. At the regular meeting Dr. M. Wilson Searight was the speaker, his subject being "Discussion of Common Gynecological Disorders." A luncheon followed the meeting, with Mrs. Otis Warr, Mrs. John J. Shea, Mrs. R. E. Flack, Mrs. T. P. Nash, and Mrs. D. H. James as hostesses. A dinner was given by the auxiliary and the advisory council on January 26 in honor of Mrs. David S. Long, first vice-president of the Auxiliary to the American Medical Association. Mrs. Long spoke on "The Relation of the Auxiliary to the Medical Society."

### *Knox County*

The Auxiliary to the Knox County Medical Society met on March 3 at the home of Mrs. J. H. Keeling. Dr. H. E. Christenberry spoke on "Health Conditions in the City School." Mrs. Perry McCallum, a doctor's daughter, read "The Happy Prince." Fifty members were present to enjoy the meeting and the luncheon which followed.

### *Davidson County*

The Woman's Auxiliary to the Nashville Academy of Medicine and Davidson County Medical Society held its February meeting at the Y.W.C.A. Mrs. J. D. Lester, national Hygeia chairman, spoke on "Hygeia and the Auxiliary." Plans were made for a dinner to be given on March 17. Mrs. E. C. Lowry,

chairman of the committee for the Girl Scout troop sponsored by the auxiliary, told of the splendid growth of the troop and the work being done for this group of underprivileged girls.

## MEDICAL SOCIETIES

### *Anderson County:*

The Anderson County Medical Society met on March 1 at 7:30 P.M. in the health unit office at Clinton with the president, Dr. Hicks, presiding. The secretary read the minutes of the last meeting which were duly approved.

The society voted sympathy for Dr. J. M. Cox, of Coal Creek, who is ill in Knoxville Hospital. Flowers were sent to him by the society and their hopes for his speedy recovery.

"Diseases of the Myocardium" was prearranged subject for papers and discussion.

Dr. O. E. Ballou, who is away on his vacation, prepared his paper on "Etiology and Pathology of Diseases of the Myocardium" and left it with the secretary, Dr. Hall, who read it.

Dr. J. Sam Taylor followed with a paper on "The Symptoms and Treatment of Diseases of the Myocardium."

Dr. DuBard of Norris opened the discussion, which was actively joined in by all members of the society present.

Drs. Ballou and Taylor were congratulated on their presentation of the complex subject.

J. S. HALL,

*Secretary.*

W. B. BARTON,

*Corresponding Secretary.*

### *Davidson County:*

February 16—"Embolism in Abdominal Aorta," by Dr. Hugh Morgan. Discussion opened by Dr. Barney Brooks.

February 23—"Respiratory Obstruction from Nodular Goitre," by Dr. N. S. Shofner. Discussion opened by Dr. E. L. Rippy.

"Case Report: Unusual Case of Agranulocytosis," by Dr. Joe Alford. Discussion

opened by Drs. Howard King and Hugh Morgan.

March 2—"Studies of Hydatid Disease," by Dr. Edward L. Turner. Discussion opened by Dr. Henry E. Meleney.

"Case Report: Two Unusual Cases," by Dr. C. L. Hill. Discussion opened by Dr. H. S. Shoulders.

March 9—"Conservative Management of Damaged Renal Tissue," by Drs. J. C. Pennington and Earl Lowry. Discussion opened by Drs. Perry Bromberg and S. R. Teachout.

The following papers are scheduled to be read:

March 16—"Surgery of Pulmonary Tuberculosis," by Dr. M. B. Davis. To discuss: Drs. Alfred Blalock and R. R. Crowe.

March 23—"A Few Observations Pertaining to Pseudosinusitis," by Dr. Eugene Orr. To discuss: Drs. W. G. Kennon and Robert E. Sullivan.

April 6—"Methyl Chloride (Refrigerator Gas) Poisoning," by Dr. Albert Weinstein.

### *Dyer, Lake, and Crockett Counties:*

The Dyer, Lake, and Crockett Counties Medical Society met in regular monthly session March 3, 1937.

The following scientific program was presented:

"Flood Comments," Dr. Gurney Clark, Tennessee State Health Department.

"First Hundred Refugees Admitted to Hospital," Dr. E. H. Baird, Dyersburg.

"Management of Carcinoma of the Cervix," Dr. Frank Smythe, Memphis.

"Diagnosis and Surgical Management of Gall-bladder Disease," Dr. R. L. Sanders, Memphis.

The meeting was very instructive. Thirty in attendance.

C. L. DENTON, *Secretary.*

### *Gibson County:*

The Gibson County Medical Society met in the offices of the Gibson County Health Department in Trenton on February 22.

Dr. W. L. Williamson, Memphis, president of the Tennessee State Medical Association, talked to the doctors on pending leg-



isolation and on the postgraduate courses in obstetrics. Mr. Kibler, field agent, discussed the details of the program.

Dr. J. Cash King, Memphis, read a paper on "Physical Therapy in General Practice."

The meeting was well attended, and the papers well received.

The County Medical Society went on record as favoring the work of the County Health Department, and a committee was appointed to interview magistrates to the end that the work be continued without interruption.

F. L. ROBERTS, M.D., *Secretary*.

#### *Hamilton County:*

The following papers are scheduled to be read before the Hamilton County Medical Society:

March 18—"Pathological Changes of the Fundus Occurring in Common Systemic Diseases," by Dr. F. J. Hackney. "Some Pharyngeal Infections," by Dr. C. L. Lasser. "Fractures of the Wrist," by Dr. Wm. J. Sheridan.

March 25—"The Eye in Systemic Vascular Disease," by Dr. A. H. Benz. "Mistakes in Interpretation of Symptoms in Cardiovascular Diseases," by Dr. James L. Bibb.

April 1—"Influences of Weather on Hay Fever and Asthma Patients," by Dr. T. C. Crowell. "The Physician as a Citizen," by Dr. F. B. Stapp.

April 8—"Some Principles of Endocrine Therapy," by Dr. E. H. Magee. "Endometriosis with Case Reports," by Dr. J. A. Reynolds.

#### *Hardin, Lawrence, Lewis, Perry, and Wayne Counties:*

The Five-County Medical Society met in Hohenwald, February 23. The following papers were read:

"Pernicious Anemia," by Dr. W. E. Boyce, Flatwoods. Discussion opened by Dr. J. W. Irwin, Savannah.

"Congenital Cysts of the Neck," by Dr. N. S. Shofner, Nashville. Discussion opened by Dr. J. W. Frost, Linden.

"Vertigo," by Dr. Leo C. Harris, Lawrenceburg. General discussion.

"Some Conditions Not Infrequently Overlooked," by Dr. W. H. Witt, Nashville. General discussion.

#### *Knox County:*

February 9—"Perthes Disease, with a Brief History and Films of a Case for Two Years," by Dr. Chas. F. Clayton. Discussion opened by Drs. Austin and Waterhouse.

February 16—"Carcinoma of the Colon with Especial Emphasis on the Rectal Sigmoid and Rectal Area," by Dr. E. T. West, Johnson City.

February 23—The Knox County Medical Auxiliary was guest of the Knox County Medical Society. Work of the Knox County Medical Auxiliary was discussed by Mrs. Dewey Peters. "Some Points on the Work and Plans of the National Organization," by Mrs. Oliver W. Hill.

March 2—"Nontubercular Pulmonary Infections," by Dr. R. B. Wood. Drs. Rufus Smith, Carmichael, and Zemp led the discussion.

#### *Lincoln County:*

The Lincoln County Medical Society held its monthly meeting on February 9 with a full attendance.

Dr. Monroe F. Brown read a paper on "Childhood Type Tuberculosis."

Final arrangements were made for a postgraduate course in obstetrics to be given at Fayetteville, beginning March 17, at two o'clock.

MONROE F. BROWN, M.D., *Secretary*.

#### *Marshall County:*

The Marshall County Medical Society held its regular meeting Thursday afternoon, February 25.

A paper on "Common Colds," by Dr. N. H. Culbertson, who was unable to be present, was read and other members joined in a round-table discussion of the subject.

Physicians present were W. T. Sharp, W. T. Eatherly, P. W. Foster, J. G. Waldrop, C. C. and J. A. Hardison, F. H. Gault, and J. W. Reed.

The association adjourned to meet Thursday afternoon, March 25, at which time Dr. Eatherly will be the essayist, using the subject "Itch."

#### *Sullivan-Johnson Counties:*

The Sullivan-Johnson County Medical Society met in Kingsport on Wednesday, March 3.

Dr. J. E. Williams read a paper on "Hodgkins Disease." Discussion opened by Drs. W. H. Reed and L. C. Cox.

Dr. W. J. Murphy's subject was "Scarlet Fever." Drs. Wm. Gammon and T. R. Bowers opened discussion.

#### *Washington County:*

The following papers were read before the Washington County Medical Society:

February 4—"Case Report," by Dr. H. L. Monroe. Discussion opened by Dr. Lee K. Gibson. "Ectopic Pregnancy, with Report of Case of Fifteen Months' Pregnancy," by P. E. Parker. Discussion opened by Drs. Budd and Friberg.

March 4—"The Origin and Treatment of Renal Calculi," by Dr. G. J. Budd. Discussion by Drs. Cupp and Parker. "The Community Hospital," by Mr. George Eustler, manager, Holston Valley Community Hospital.

On April 2 Dr. L. M. Blackford, associate professor of medicine, Emory University, will speak on "Syphilis of the Aorta."

## OTHER MEDICAL SOCIETIES

### VANDERBILT UNIVERSITY MEDICAL SOCIETY FEBRUARY 5, 1937

1. Report of cases: "Two cases of Intracranial Osteoma," Dr. Edward F. Parker, Jr.

The first patient was a twenty-year-old white man with a large osteoma, present at least three years, in the left frontal sinus with sacculations of pus about the tumor, which had eroded through the roof of the

orbit, and through the posterior walls of the sinus into the frontal lobe, further complicated by staphylococcus meningitis.

The second case was that of a large osteoma arising from the inner table of the right temporal bone and protruding into the temporal lobe in a thirty-five-year-old white woman, who had been having severe right-sided temporal headaches for nine years, and generalized convulsions for five years, before operation. In both patients the tumor had been removed successfully with complete recovery in both cases.

Cases discussed by Dr. Cobb Pilcher.

2. "Some Experiments with Dyes as Anticoagulants," Dr. C. E. King.

The dye Pontamine Fast Pink B L has been found to have marked anticoagulant properties, and can be injected intravenously into animals for experimental work. It also renders the blood incoagulable in vitro. Upon the injection of the dye into the blood stream the blood is rendered incoagulable for many hours. The dye does not interfere with the oxygen saturation or capacity of the blood. It does not appear in the saliva, bile, or gastrointestinal tract. It is slowly excreted by the kidneys.

Paper discussed by Dr. Walter E. Garrey.

3. "Results Obtained in Operative Treatment of Patients of Advanced Age in Vanderbilt Hospital During a Period of Ten Years," Dr. Barney Brooks.

During recent years there has been a remarkable increase in average life expectancy associated with a progressive decline in birth rate. The operation of these two factors is producing a significant shift in the age composition of the population toward the higher age groups. On the basis of this knowledge, an analysis was made of experiences in the surgical wards of the Vanderbilt University Hospital during the past ten years in dealing with patients over seventy years of age. This study revealed the distribution of diseases in this group, together with mortality and life realization of those discharged from the hospital.

Paper discussed by Dr. W. S. Leathers.

## LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. W. L. Williamson, 915 Madison Avenue, Memphis.  
 Vice President for West Tennessee—Dr. J. E. Powers, Jackson.  
 Vice President for Middle Tennessee—Dr. J. O. Walker, Franklin.  
 Vice President for East Tennessee—Dr. Lee K. Gibson, Johnson City.  
 Secretary—Editor—Dr. H. H. Shoulders.  
 Assistant Secretary—Editor—Dr. W. M. Hardy.

## TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville.  
 Dr. A. F. Cooper, Goodwyn Institute Building, Memphis.  
 Dr. E. R. Zemp, Walnut Street, Knoxville.  
 Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.  
 Dr. John B. Steele, Volunteer Building, Chattanooga.

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 Eighth District—Dr. J. R. Thompson, Jackson.  
 Ninth District—Dr. E. H. Baird, Dyersburg.  
 Tenth District—Dr. W. B. Burns, Memphis.  
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## Delegates to the American Medical Association—

Dr. E. G. Wood, Knoxville; East Tennessee.  
 Dr. H. H. Shoulders, Nashville; Middle Tennessee.  
 Dr. H. B. Everett, Memphis; West Tennessee.

## Alternates—

Dr. E. T. Newell, Chattanooga; East Tennessee.  
 Dr. J. O. Manier, Nashville; Middle Tennessee.  
 Dr. E. C. Ellett, Memphis; West Tennessee.

## OFFICERS OF COUNTY MEDICAL SOCIETIES

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Carter	O. F. Agree, Elizabethton	A. R. Collins, Watauga Valley	J. H. Williams, McKenzie
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Cumberland	E. W. Mitchell, Crossville		Fred M. Valentine, Newport
Davidson	Jack Witherspoon, Nashville	T. D. McKinney, Nashville	V. L. Lewis, Crossville
Dickson	L. F. Loggin, Charlotte		J. P. Gilbert, Nashville
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		W. L. Sumner, Ridgely (Lake)	C. L. Denton, Dyersburg
		J. O. McKinney, Friendship (Crockett)	
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Fentress	C. A. Collins, Wilder	A. H. Crouch, Forbus	J. P. Sloan, Jamestown
Franklin	Alfred Parker Smith, Winchester	Geo. E. Bogart, Sherwood	John M. Hardy, Sewanee
Gibson	H. P. Clemmer, Milan	J. W. Allen, Rutherford	F. L. Roberts, Trenton
Giles	J. G. Waldrop, Lewisburg	A. W. Deane, Pulaski	T. F. Booth, Pulaski
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Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. P. Howell, Morristown	R. A. Purvis, Morristown	P. L. Henderson, Morristown
Hamilton	E. A. Gilbert, Chattanooga	A. M. Patterson, Chattanooga	J. Marsh Frere, Chattanooga
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		V. H. Crowder, Lawrenceburg (Lawrence)	
		Paul Wylie, Hohenwald (Lewis)	
		J. W. Frost, Linden (Perry)	
		J. T. Keeton, Clifton (Wayne)	
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		R. O. Glenn, Mountain City (Johnson)	
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Weakley	J. E. Taylor, Dresden	W. J. Jones, Martin	P. W. Wilson, Dresden
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Wilson	M. H. Wells, Watertown	R. N. Buchanan, Jr., Lebanon	R. B. Gaston, Lebanon



## COMMITTEES

The following is a list of the standing committees of the Tennessee State Medical Association provided for in the constitution and by-laws and appointed by the proper authority, together with some special committees appointed under the authority of a resolution by the House of Delegates.

Some of the committees are appointed for a definite period. In such instances the appointment of the committeeman expires with the meeting of the House of Delegates in the year stated opposite his name.

### COMMITTEE ON SCIENTIFIC WORK

H. H. Shoulders, Chairman, Nashville.  
A. F. Cooper, Memphis.  
Frank Harris, Chattanooga.  
A. H. Lancaster, Knoxville.

### COMMITTEE ON PUBLIC POLICY AND LEGISLATION

L. W. Edwards, Chairman, Nashville (1939).  
E. W. Cocke, Memphis (1941).  
Battle Malone, Memphis (1940).  
Tom Barry, Knoxville (1938).  
T. R. Ray, Shelbyville (1937).

### LIAISON COMMITTEE

W. C. Dixon, Chairman, Nashville (1941).  
W. P. Wood, Knoxville (1940).  
Hiram A. Laws, Chattanooga (1939).  
Tom Mitchell, Memphis (1938).  
J. L. Raulston, Knoxville (1937).

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O. N. Bryan, Nashville.  
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S. R. Miller, Knoxville.

### COMMITTEE ON MEDICAL DEFENSE

S. R. Miller, Chairman, Knoxville.  
H. B. Everett, Memphis.  
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### ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

W. P. Wood, Chairman, Knoxville.  
W. M. Searight, Memphis.  
L. W. Edwards, Nashville.

### COMMITTEE ON EDUCATION

O. S. Warr, Chairman, Memphis (1938).  
R. B. Wood, Knoxville (1938).  
W. G. Kennon, Nashville (1937).  
J. Marsh Frere, Chattanooga (1937).  
W. O. Baird, Henderson (1939).  
J. M. Lee, Nashville (1939).

The following committees are expected to serve under the supervision of the Committee on Education:

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J. R. Reinberger, Chairman, Memphis.  
M. S. Lewis, Nashville.  
H. B. Hewitt, Chattanooga.  
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J. O. Manier, Nashville.  
Otis S. Warr, Memphis.  
John B. Youmans, Nashville.

## ABSTRACTS OF CURRENT LITERATURE

### A TIP TO ABSTRACTERS

February 21, 1937.

My Dear Doctor Editor:

I am rendering unto you this abstract a week or so before it is required. My promptness in this matter is not due to enthusiasm, not due to altruism, nor is it actuated by zeal. I have found that my buoyancy and elan are always depressed at the first of a month, and I have become unwilling to have them depressed during the last few days of the month, as these periods of sadness are beginning to overlap. It is my intention to recuperate before the first arrives, and I can then face the unpleasantness with more fortitude and self-assurance. I wish to say to you that I can now wake up in the morning without pausing to ponder over a duty undone. I can retire to rest at night without a grim battle with my conscience. I can now eat food that is not tainted with remorse. I can now walk the streets of —ville with head erect and fear the reproaches of no man. My soul has been emancipated; freedom of thought has been recaptured; and ideation is now unhindered.

Yours very truly,

\_\_\_\_\_, M. D.  
(Name on request)

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

Present-Day Anesthesia. L. F. Sise. The Journal of the Indiana State Medical Association, December, 1936.

Progress in anesthesia was slow until recent years, but progress has been more rapid since the rise of the specialty of anesthesia. Intravenous anesthesia was never satisfactory until the discovery and use of the shorter acting barbiturates. Now the length of anesthesia can be controlled at will by repeated injections.

Spinal anesthesia has been robbed of its former difficulties and dangers by improved technic, by the use of longer-acting drugs as pontocaine and nupercaine, and by the more efficient use of ephedrine, adrenalin, oxygen, and artificial respiration to prevent and combat undesirable complications.

The most outstanding event in inhalation anes-

thesia is the use of carbon dioxide absorption, resulting in tremendous saving of gases and more quiet anesthesia. Due to the accumulation of moisture in the circuit, explosions are prevented. Intratracheal anesthesia is aided by the to and fro carbon dioxide absorption. By the use of an endotracheal cuff, which is inflated, escape of gases and the aspiration of mucus is prevented. Also the tube may be introduced into one bronchus, one cuff being inflated in bronchus, while a second cuff is inflated in trachea. By this method the opposite lung is at rest for any operative procedure.

Vinyl ether is suitable for short operations, obstetrics, and inductions, as induction is rapid and recovery also. Cyclopropane is indicated where any gas is to be used, especially when an abundance of oxygen is desirable. Tribromethanol, paraldehyde, and some barbiturate is indicated in very nervous patients to render them less apprehensive before being taken to the operating room. In conclusion it can be said that present-day anesthesia presents a wider choice of anesthetic agents and methods for any given condition than ever before.

### DERMATOLOGY

By E. E. BROWN, M.D.  
Doctors Building, Nashville

The Virus of Pemphigus and Dermatitis Herpetiformis.

By Drs. Erich Urbach and Stefan Wolfram, Vienna, Austria, Archives of Dermatology and Syphilology, May, 1936.

The report deals with the results of investigations of material obtained from blood serum and blisters of patients with pemphigus, dermatitis herpetiformis, and other dermatoses.

Technic of animal experimentation is given, also tables of results. Pathological anatomy and histology of infected animals are recorded. Rabbits inoculated with blood serum and fluid from blisters presented the clinical picture of the diseases, the same was true of filtrates of the skin and various organs from patients dying of pemphigus. The transmission of the infection from humans to animals was successful, as was passage from animal to animal.

They concluded that the diseases were due to an invisible filtrable virus and that both diseases were the same but different forms.

### OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.  
Suite 316 Doctors Building, Nashville

Tuberculosis from the Point of View of the Obstetrician.

Harvey B. Matthews, Bulletin of New York Academy of Medicine, 13: 1, 37, January, 1937.

The cherished hope of every woman is motherhood. This desire is most manifest during adoles-

cence and young womanhood, the age of highest incidence of tuberculosis. "We have no right to say, 'No woman with tuberculosis can safely bear children,' nor can we please Mussolini and say, 'Tuberculosis doesn't matter, let her go ahead and have children—the country needs them for soldiers.'"

The internist, obstetrician, and pediatrician must work hand in hand. "A middle of the road" attitude will yield successful results when judged by the physician with a reasonable thorough understanding of the two conditions in association.

Pregnancy in the patient with active tuberculosis, no matter how little tuberculosis is present, is most dangerous. The author advises therapeutic abortion for these unfortunate patients. However, if three or four or more years are allowed to elapse following "arrest," during which time the general health has remained satisfactory, pregnancy may be undertaken with comparative safety even in these cases.

### OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
Doctors Building, Nashville

Iridectomy with Cyclodialysis for Reduction of Ocular Tension. J. M. Wheeler, American Journal of Ophthalmology, February, 1937.

This operation is recommended for the far-advanced cases which have not responded to more conservative treatment. A large conjunctival flap is dissected up, and a scleral incision three or four millimeters long is made with a cataract or dissection knife, eight to ten millimeters from the limbus, slanting slightly toward the iris. An angulated spatula is passed through the scleral incision, and the uvea separated by rotating the round handle of the spatula. Then a keratome incision is made at the limbus, under the conjunctival flap. Good traction is made on the iris with forceps and the scissors held close to the globe so as to cut off the iris at its attachment to the ciliary body.

Treatment of Atrophy of the Optic Nerve. H. Lauber, American Journal of Ophthalmology, February, 1937.

Patients suffering with tabes who had signs of involvement of the optic nerve frequently showed periods of low blood pressure, and this is considered one of the chief factors in the production of optic atrophy. Since the blood pressure cannot be satisfactorily increased at will, restoration of normal balance between intraocular tension and retinal blood pressure is produced by miotics or operation. Cyclodialysis was found to be the most satisfactory. The results in thirty-three cases of optic atrophy are shown by charts and four cases are reported in detail. In each an improvement of vision followed reduction of intraocular tension.

### OTOLOGY, LARYNGOLOGY, RHINOLOGY

By W. W. POTTER, M.D.  
Medical Building, Knoxville

The Staphylococcus Relation to Sinusitis, Bronchitis, and Bronchiectasis. Fletcher B. Woodward, M.D., Archives, Otolaryngology, December, 1936.

The author points out the importance of the staphylococcus in these conditions. Attention has been so focused on streptococcus, pneumococci, influenza bacilli, fungi, and spirochetal organisms that the staphylococcus has been more or less ignored. The cultures from sixty-four patients with chronic low-grade sinus infection revealed that hemolytic staphylococci were found forty-eight times, nonhemolytic forty-six times. The cultures were taken from the sphenoethmoid region after shrinking the tissues. While there may be some criticism of this technic, he feels that when it is carefully done in routine work its results are sufficiently accurate. He regards this as a preliminary report, or rather a summary of clinical impressions. In acute sinusitis, the staphylococcus is usually predominant, and, although there may be grave complications with more virulent strains, the normal body defenses are sufficient to control them in the majority of instances.

However, when the predominant organism is the staphylococcus, experience has shown the orbital abscess, osteomyelitis, thrombosis of the cavernous sinus, meningitis, abscess of the brain, and septicemia are likely possibilities. For this reason, early recognition by bacteriologic smears and cultures is very important. In addition to the usual procedures the use of toxoid is advocated. In the treatment of chronic sinusitis with bronchiectasis, the author feels that in addition to bronchoscopy and elimination of sinus disease specific treatment with toxoid and antitoxin is of definite value.

### PEDIATRICS

By JOHN M. LEE, M.D.  
Doctors Building, Nashville

Multiple Neuritis from Diphtheria Toxoid. Scott J. Wilkinson, M.D., Journal of Pediatrics, February, 1937.

A female aged one year received five-tenths cubic centimeters of a standard proprietary brand of alum precipitated diphtheria toxoid subcutaneously two and one-half weeks after recovery from a mild attack of measles. During the next week the parents noted a gradually developing weakness and decrease of activity, which increased for three weeks. At this time the child was bedfast, with active motion of body and limbs being practically absent. When raised to a sitting position, the jaw dropped, and she was unable to hold the head



erect. The deep and abdominal reflexes were absent. There was no pain, tenderness, or hyperesthesia. After a stationary period of twelve days there was a gradual improvement, and twelve weeks after onset the reflexes had returned to normal, muscular strength was returning, but the child would not attempt to stand alone. Later she relearned to walk and resumed normal development.

It was felt that a defective toxoid was not responsible for the paralysis, since the remainder of the ten-dose package was used on other children with no such result. The location and time of onset of paralysis differed from those of a postdiphtheritic neuritis. It seems unlikely that the child's neuritis was due to the measles, since neural complications in this disease come earlier than in this patient and are usually encephalitic in nature.

Repeatedly has the above syndrome of peripheral nerve paralysis been observed following the prophylactic and therapeutic use of sera and vaccines, though this seems to be the first report of the condition developing after the use of diphtheria toxoid.

### ROENTGENOLOGY

By FRANKLIN B. BOGART, M.D.

Medical Arts Building, Chattanooga

A Review of Some Features of Regional Ileitis. John Sproull, *American Journal of Roentgenology and Radium Therapy*, December, 1936.

After a review of the current literature on this condition, most of which has appeared since 1932, the author points out that, although early writers believed the lesion was always restricted to the terminal portion of the ileum, it has been shown that it can involve any portion of the jejunum or ileum and may involve portions of the colon. Grossly the lesion is often mistaken for a tuberculous intestine by the surgeon at the time of operation.

### GROSS PATHOLOGY

The gross pathological changes seen on the outside of the gut involved are: (a) the roughened granular appearance of the serosa; (b) the tubercle-like formation on the serosa; (c) the evidence of inflammation as shown by swelling, redness, and stiffness of the bowel wall; (d) the diminished diameter of the affected segment; (e) the varicose condition of the blood supply; (f) the edema and inflammation of the mesenteric fat; (g) the evident lymph gland hyperplasia. The gross pathological changes seen on the interior of the gut are (a) the abnormal thickness of the bowel wall; (b) serpiginous type of ulcerations which extend along the mesenteric border; (c) the grayish diphtheritic-like membrane covering the ulcers; (d) islands of isolated swollen mucosa between the ulcers.

### SYMPTOMATOLOGY

The symptomatology varies widely with the stage of the disease. While some cases do show the

clinical picture of ulcerative colitis—that is, fever, diarrhea, emaciation, and pus and blood in the stools—other cases, which show at operation extensive ulcerative lesion in the affected segment of the small bowel, have but slight subjective or objective symptoms and in whom most of the examinations have been negative except the X-ray findings. Abdominal pain, most often peri-umbilical, is the most constant symptom. Clubbing of the fingers may occur. In the acute stage the symptoms may simulate acute appendicitis.

### ROENTGEN SIGNS

Acute cases are seldom subjected to roentgen examination. In subacute cases the findings are moderate narrowing of the lumen of the bowel, irregularity of the margins of the bowel, some degree of local stasis, rigidity of the bowel wall, and a mucosal relief pattern of the so-called fingerprint depression type which resembles that produced by polyposis. The later stage described by Kantor when it affects the terminal ileum shows a filling defect of varying length, dilatation of loops of the ileum proximal to the lesion and the presence of puddling and fluid levels in this area, abnormality in the contour of the last-filled loop of the ileum, the presence of a stringlike shadow of barium, of varying length, which represents the Kantor sign. Study of the small intestines roentgenographically necessitates examination at frequent intervals during the first six hours following the ingestion of the barium meal. Lesions involving the colon are studied by barium enema, and where the terminal loops of the ileum are involved the barium enema may reveal this lesion, since the ileocecal valve is always patent in such a case.

### ABTRACTER'S NOTE

Regional ileitis is a condition which is attracting an increasing amount of attention from the surgeon, internist, and radiologist. It is certainly of more frequent occurrence than has been supposed. It is a condition we should consider in our diagnosis and about which we should all strive to increase our knowledge.

### SURGERY—GENERAL AND ABDOMINAL

By BATTLE MALONE, II, M.D.  
1400 Monroe Avenue, Memphis

Recent Trends in the Treatment of Varicose Veins and Varicose Ulcer. Neil W. Swinton, M.D., *Surgical Clinics of North America*, December, 1936.

The author briefly reviews the history of the treatment of varicose veins. With the advent of the injection treatment, there were many recurrences due to the internal saphenous vein not being treated. There are three interrelated routes for

the return of blood from the lower extremities: (1) the superficial or saphenous system, (2) the femoral vein and its tributaries, and (3) the communicating system of veins between the two. When the valves in any of these systems become incompetent, the flow of blood is reversed. The valves in the superficial system are usually first to become incompetent, but if the condition progresses the communicating valves also become affected. This leads to stasis, edema of the tissues, and anoxemia, resulting finally in infection in the lymphatics and ulceration.

The true etiology of varicose veins is not known. Heredity is a factor. Abdominal tumors, chronic chest diseases, circular garters, tight girdles, long hours of standing, and infection of the walls of the vein are all considered predisposing factors. A complete physical examination should be done on all patients with varicosities. The condition of the venous and arterial circulation is determined. The Trendelenberg test demonstrates the reverse flow of venous blood in the internal saphenous system. The patency of the deep circulation is tested by a modification of Perthes' test. The superficial circulation is obliterated with an ace bandage and patient allowed to walk about. If there is no pain, the deep circulation is judged competent. If there is pain on exercise, any method for the obliteration of the superficial veins should be abandoned. Six months should elapse after thrombophlebitis before any treatment is begun. If there is severe infection of an ulcer, the patient is hospitalized and ulcer treated with Dakin's solution or hot wet dressings before doing the ligation.

For the ligation a transverse incision is made parallel to Poupart's ligament and one centimeter below it. The saphenous vein is dissected up, and the tributary veins in that area are ligated. The main trunk is then ligated one-half to one centimeter from the femoral, and a retrograde injection is made below the ligature. Ten per cent saline combined with thirty per cent glucose is the solution used, and the amount varies from ten to twenty cubic centimeters. A second ligature is then placed on the saphenous one to two centimeters below the first and the intervening section of the vein removed. Ace bandages are placed on the leg at least to the knee, and the patient leaves the hospital the following day. Following operation the patients are urged to take a few steps every hour. Subsequent injections are done at the convenience of the patient. Solutions used are sodium morrhuate or quinine and urethane. Four to six cubic centimeters of the solution given in two to three areas are sufficient. Some types of support as the ace bandage is worn throughout the course of the treatment.

## UROLOGY

By TOM R. BARRY, M.D., F.A.C.S.

By G. A. WILLIAMSON, JR., M.D.

Medical Building, Knoxville

Pyelitis Complicating Pregnancy. Herbert F. Traut, M.D., *Journal of Surgery*, February, 1937.

The following complications were observed in 100 pregnant women entering New York Lying-In Hospital: pyelitis, 2.02 per cent; chronic nephritis, 2.29 per cent; cardiac disease, 3.66 per cent.

Pyelitis may occur any time during pregnancy or puerperium. The right side is most commonly involved.

Two major factors are necessary for the development of the disease: first, stasis; second, entrance of bacteria into the upper urinary tract. Stasis is a common accompaniment of pregnancy, and hydroureter and hydronephrosis can be demonstrated in about eighty per cent of cases. Were it not for natural immunity to certain types of bacteria, the incidence of pyelitis would be greater. The B coli group comprises ninety per cent of these infections.

The route by which these bacteria reach the kidney is debatable. He states that the most obvious way would be via the vulva, urethra, ureter, etc.

This ascending infection is by way of the lymphatics. In the puerperium there is an added factor, trauma.

In the acute phases, the bacteria produce an inflammation of the internal aspects of the ureter and kidney pelvis, with swelling and edema of the mucosa. The later cases show involvement of the submucosal and muscle layers. If this process is prolonged, fibrosis results. Traut states that "the pregnant woman is not cured of pyeloureteritis during pregnancy."

The symptoms are elevated temperature, accelerated pulse, chills, renal pain, or soreness. A considerable abdominal distention may be present and simulate other conditions. The urine usually shows pus and bacteria. Treatment is divided into prophylactic and curative.

Numerous antepartum urines should be examined and proper treatment instituted before delivery. The presence of stasis should be determined and remedied. During the febrile stage rest in bed is essential.

Ketogenic diet and the administration of mandelic acid should be tried. The pH of urine must be 5.6 or below. Occasional cases require catheterization of the ureters.

The postnatal follow-up is most important if chronicity is to be avoided. Instrumentation here is clearly indicated. When stasis or infection persists, any pyelitis predisposes to recurrence in succeeding pregnancies.

Abortion, prematurity, and stillbirth were encountered. His fetal mortality in cases of pyelitis

of pregnancy was ten per cent as against 3.3 per cent in normal pregnancies.

He concludes that if after five or six days of expectant treatment the N. P. N. of the blood continues to rise the pregnancy should be interrupted, and that the incidence of pyelitis can be greatly reduced by prophylactic care in the antenatal period.

## BOOK REVIEW

Abortion—Spontaneous and Induced, Medical and Social Aspects. Frederick J. Taussig, M.D., F.A.C.S., St. Louis. The C. V. Mosby Company, 1936.

Ten thousand young women lose their lives in this country each year due to abortions. This statement alone should be sufficiently appalling, but if reinforcement is necessary let the reader reflect that for every woman who dies as a direct result of abortion, several more are disabled, some rendered sterile, or at a subsequent pregnancy many suffer the aftereffects of the abortion. From extensive studies the author shows that one out of every three to four pregnancies terminates in abortion.

The purpose of this most comprehensive work is to give to the general practitioner without bias or exaggeration all the essential information on this subject available from a medical and social viewpoint.

The volume of twenty-eight chapters may be divided into four parts:

Part I, History and Background of Abortion. The oldest abortifacient recipe dates to 2737 B.C.

A brief review of the records of past ages, with a description of racial predisposition to abortion, is given.

Part II, Spontaneous Abortion. Fundamental medical problems, such as anatomy of early pregnancy, etiology, pathology, mechanism, symptoms, diagnosis, prevention and treatment of abortion and its complications, are considered.

Part III, Induced Abortion. This section with portions of part two will give to the practitioner of medicine the necessary information required for the management of abortion. Also the medical aspects of legally induced or therapeutic abortion, its indication and technique; contraception and sterilization and the methods and accidents of illegally induced abortions are discussed.

Part IV, Social Aspects of Abortion. The social, economic and religious aspects of induced abortion are presented. From the standpoint of preventive medicine, the profession must give thought to the underlying social conditions that have made so many of our young mothers willing to resort to this dangerous procedure.

The bibliography is complete, followed by exact wording and analysis of the different state laws.

This volume, sponsored by "The National Committee on Maternal Health," supplies a definite need, for this is the first comprehensive study of the entire subject of abortion, presenting concise chapters, up-to-date chapters, authoritative and complete. It is very easy to recommend highly a book, readily read, the style clear and concise, containing one hundred forty-six illustrations, to the student and the general practitioner. The obstetrician and gynecologist will cherish it as an excellent work in his specialty.

HAMILTON V. GAYDEN.



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## RHEUMATIC FEVER IN CHILDREN WITH REPORT OF A CASE\*

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**B**ECAUSE rheumatic fever is one of the most important diseases causing many years of suffering and disability and more deaths in children and adolescents from rheumatic carditis than from any other one disease,<sup>1</sup> it is worthy of our consideration in such a meeting as this. Since this paper is written from the standpoint of a general practitioner in the country for general practitioners it will be limited to the discussion of symptoms, diagnosis, and treatment of rheumatic fever in children. The literature speaks of various factors that seem of importance in the etiology such as explosive outbreaks, seasonal variations, the influence of climate, the effect of poverty and unhygienic living conditions, the "evidence that the infectious agent initiating the rheumatic state is streptococcus hemolyticus," and other factors; but even today there are unsolved problems in connection with the etiology of rheumatic fever and this disease is still "one of the great enigmas of medical science."<sup>2</sup> Though there is much more that we would like to know about its etiology, yet there is much that the general practitioner can do in the handling of those cases who are suffering from this disease.

To make our problem more vivid a report of a case will first be presented.

E. G., a boy of six, was seen at his home

August 23, 1934, with severe, acute pain and swelling of the right knee, chilliness, prostration, epistaxis. Duration of this illness at time physician was called had been less than twenty-four hours. A history was given of a fall on some concrete steps at school a few days previously, but there had been no evidence of injury noted. Aside from the fall there had been nothing unusual noted by the child's foster parents. They remembered that the boy had had a slight head cold. That was all. The past medical history was that he had never been very strong or well. He had always been subject to frequent colds and sore throats. He had always appeared rather pale and nervous. His heredity and social condition are of some interest. His mother died under circumstances strongly suggesting neglect and possible starvation. She was known to have had a tuberculous infection and had been treated for pellagra. His father was said not to have been very strong. The cause of his death was not known. The foster parents of the boy are very poor and live in a poorly-constructed mountain cabin in a steep-sided hollow where the sun goes down at three o'clock in the evening. At a routine physical examination done nine months prior to onset of the present illness he was observed to be a little underweight. According to the Henryson chart, he was poorly nourished, and it was also noted that he had diseased tonsils.

On physical examination, at time of first

<sup>1</sup>Swift, Homer F.: "Rheumatic Fever," in Cecil's Medicine.

<sup>2</sup>"The Rheumatic State." Jour. A. M. A., January 21, 1933, v. 100, pp. 188-189.

call for present illness, he was observed to be a thin, pale boy lying in bed, evidently in pain, an attempt having been made to relieve the pain in the knee by placing a pillow under it. Temperature was 101 degrees, pulse 132. The tonsils were cryptic and diseased. Lungs were clear. No cardiac murmurs were heard. The knee itself was swollen, was hot and tender to the touch, and there was great pain on any attempted movement of the joint.

Urinalysis the next day showed specific gravity of 1.026; urine was acid; there was a slight trace of albumen, no sugar. Nothing abnormal was found on microscopic examination of the urine.

The treatment instituted was rest in bed, liquid diet, the administration of salicylates internally and externally.

The course of the case to date has been as follows: The fever continued at about the same level, 101.4, 102.4, 104, 102, 102.6, 103.8, 100, 102.4, 100.8, 102.4, 101, 102.8, and 100.8 degrees being the temperature readings by mouth at successive home visits. The pulse continued rapid, the readings being as follows: 132, 152, 132, 104 (sleeping), 132, 120, 144, 136, 152, 152, 144, 144, 144, 128, and 148. After two or three days sudamina was noticed. Early in the course of the disease precordial pain was complained of, for which an ice bag was used. Heart was enlarged to percussion. Various joints were progressively involved—first, the right knee, then the right wrist, the left thumb, the right ankle, the right hip, the left wrist, the left elbow, the neck. The swellings over one or two joints were lanced by the father without consulting the physician and the fluid obtained was described by him as being somewhat cloudy and greenish. The hemoglobin when tested by the Sahli method was sixty. The erythrocyte count was 3,696,000, the leucocyte count was 11,850. The differential leucocyte count was: polymorphonuclear neutrophilic leucocyte seventy-three per cent, lymphocytes twenty-three per cent, eosinophiles four per cent. Pain was so severe at times as to require an opiate.

The picture presented by such a case as this is rather familiar. Nothing has been

said about such things as sedimentation rates, electrocardiographic tracings, and careful bacteriological studies in this case. The general practitioner, especially in an isolated rural area such as mine, must depend largely on symptoms and physical signs and use laboratory aids much less, probably, than the city practitioner. Symptoms and physical signs are still, however, rather important in the study of any case. In this connection we should remember again the classical picture of the early manifestations of rheumatic infections in children. McLean<sup>3</sup> summarizes these as being "characterized by an insidious onset. Such children are pale, easily fatigued, have poor appetites and are not gaining in weight as they should. Many complain of slight pains in the legs, feet, or joints. There is often stiffness of limbs or neck. Digestive disturbances with paroxysmal abdominal pains are common. There is a change in disposition. The children become irritable, nervous, peevish, and are easily frightened. Often there is a failure in mental concentration and they begin to drop objects and at times have difficulty in writing. There may be slight muscle twitching. Examination shows an anemic child who is irritable, nervous, excitable, high-strung, and usually underweight." It is important to have the concept as we think of symptoms of this infection that rheumatic fever is a generalized infection. Included in our thought of it should be not only arthritis and fever and endocarditis, but all its manifestations, such things as pleurisy, tonsillitis, chorea, exudative erythematata, and subcutaneous nodules.

The case presented was rather typical in that within twenty-four hours it was well developed with fever, rapid pulse, severe pain, prostration, and epistaxis. The fact that the arthritis moved from joint to joint was also typical. Swift<sup>4</sup> has called attention to the symmetrical involvement of joints at first as being more common.

<sup>3</sup>"Early Manifestations of Rheumatic Infections in Young Children." C. C. McLean, *Annals of Int. Med.*, Vol. 5, No. 11, May 32, 1357-1366.

<sup>4</sup>"Rheumatic Fever," in Cecil's *Medicine*, Ed. 1927, p. 80.

Cardiac symptoms are common, and even though recourse cannot be had to the electrocardiograph, it is important to palpate, percuss, and auscultate. The patient will complain of precordial pain which points to myocarditis. Percussion may show dilatation or pericardial effusion.

On auscultation one may observe changes in rhythm, perhaps a gallop rhythm, or premature contractions, sometimes complete irregularity. Murmurs may be heard, especially systolic murmurs heard over the mitral area.

It is important to watch for and detect pericarditis.

The pulse should be carefully watched because it reflects the condition of the heart.

The blood picture is that of a secondary anemia either moderate or severe. There is a leucocytosis of from 15,000 to 25,000.

Sometimes delirium followed by coma is observed. And chorea may be observed as one of the grave manifestations of the rheumatic infection.

Albuminuria is common as in any high fever and sometimes other kidney manifestations. The nutrition always suffers.

Rheumatic fever in children practically always runs a subacute or chronic course unless it is acutely fatal. Relapses are common.

In the diagnosis of rheumatic fever in children we must depend upon the symptoms and signs and the elimination of other conditions. We have not yet found one definite etiological agent. We cannot do a test like the Wassermann.

It is, therefore, possible for the diagnosis to be in doubt. One feature that is often depended on to some extent in the diagnosis is the migratory arthritis in a number of joints which responds to certain drugs. Then the so-called rheumatic series occurring in a certain individual is a help in diagnosis—such things as cardiac involvement, subcutaneous nodules, undernutrition, low-grade toxic state, and chorea.

Master and Jaffe<sup>5</sup> believe "acute rheu-

matic fever and rheumatoid (infectious) arthritis are often indistinguishable clinically, particularly at the onset." The point they make in distinguishing the two conditions is "that in rheumatoid (infectious) arthritis the heart is minimally involved, whereas in acute rheumatic fever it is maximally involved." But the means they used daily for the determination of cardiac involvement was the electrocardiograph which is not available to many general practitioners. The results of their studies they summarized as follows: "In seventeen patients with rheumatoid (infectious) arthritis on whom electrocardiograms were taken daily for an average of fifty-three days, only the slightest evidence of myocardial involvement was recorded. In sixty-three cases of acute rheumatic fever, definite electrocardiographic evidence of myocardial involvement appeared in 100 per cent."

It is, of course, comparatively simple to rule out the various infections which have arthritis as a complication because the history of the case should help about this. Then the type of arthritis and other clinical manifestations should be of help in the diagnosis. Infections which might show arthritides are gonorrhea, scarlet fever, puerperal sepsis. One would not expect gonorrhea or puerperal sepsis to complicate the diagnosis of rheumatic fever in children. Acute septic arthritis, osteomyelitis, hemophilia, and scurvy—all these at times might have features that might complicate the diagnosis of rheumatic fever.

It is important to determine the activity of each rheumatic infection. The prognosis for the patient surviving the attack is good. The older the child is at the time of the attack the better the prognosis, except that about the age of puberty many patients seem to die. The presence of chorea or of nodules with other forms of the disease seems to mean a poor prognosis because of the greater liability to permanent cardiac damage. The important thing in prognosis is the question: Can the patient completely overcome the infection?

<sup>5</sup>"Rheumatoid (Infectious) Arthritis and Acute Rheumatic Fever. The Differential Diagnosis." Master and Jaffe, *Jour. A. M. A.*, March 12, 1932, v. 98, p. 881.



Struthers and Bacal<sup>6</sup> point out the value of the sedimentation rate in determining the activity of rheumatic infection in childhood. They say: "The sedimentation rate is probably the most delicate of these tests . . . excepting in the presence of cardiac failure with edema when it falls rapidly to levels below the normal and is of grave prognostic import." It has been pointed out by Esler<sup>7</sup> that "the majority who contract the disease in childhood and whose first attack or subsequent attacks produce marked cardiac changes die of their cardiac impairment usually before the age of forty."

When we discuss the treatment of this disease we admit at once that we have no remedy that is specific as quinine is in malaria or arsenic in syphilis. Latham<sup>8</sup> in 1845 wrote, "Acute rheumatism has experienced strange things at the hands of medical men. No disease has been treated by such various and opposite methods. Venesection has wrought its cure, and so has opium, and so has calomel, and so has colchicum, and so have drastic purgatives. I speak of these remedies in the sense which medical men imply when they talk (as they sometimes do) of this, that, or the other thing being their 'sheet anchor,' meaning that they rest upon it alone for the cure of rheumatism, and employ other remedies either not at all, or for very subordinate purposes. And, indeed, I bear my testimony to the success of each of these different remedies. So far as that, under the use of each, I have seen patients get well." Graef, Parent, Zitron, and Wyckoff<sup>9</sup> observe, as have many others, "In adolescence and adult life the acute manifestations of rheumatic fever tend to subside spontaneously. These manifestations vary in number, degree, and duration." Hippocrates is said to have spoken of the use of bee venom

in the treatment of this disease and this method of treatment of rheumatic pains has been tested by Perrin<sup>10</sup> who finds that it is good treatment.

The important things to consider in therapy are rest, nutrition, relief of pain, and convalescence. Pain enforces rest during the acute stage. Later it is usually more difficult to enforce though important. The lack of appetite or the fickle appetite of the patient makes it difficult to maintain the nutrition. A high calory diet should be used. When convalescence is established the diet may be coarser and more varied. Swathing the affected joints with cotton pads and support by pillows helps and gives some comfort. Great care should be taken to avoid development of pressure sores by careful bathing and dusting with some powder. Fluids should be given in large amounts because of the loss by sweating as well as to encourage elimination of toxins. It is desirable to have the patient in the fresh air and sunshine if possible, but in doing so great care should be taken to avoid drafts which might mean chilling because of the excessive perspiration.

In considering drugs in this disease we must first of all mention the salicylates. This drug given in full doses has long been thought to act as a sort of specific in rheumatic fever and there are good reasons for continuing to use it, but it is not a specific in the true sense of the word. The reasons why we should continue to use it are that under its use the fever subsides, and there is a reduction of the pain, heat, redness, and swelling in the joints. Opium or some derivative thereof will reduce pain, but will not cause the reducing of the inflammation, although it may be necessary sometimes to use it. Other antipyretics will reduce fever, but will not help the other symptoms. When we have said this we have said about all that can be said for the salicylates. They do not shorten the course of the disease nor do they lessen the incidence of heart complications. Leech<sup>11</sup>

<sup>6</sup>"Determination of Activity of Rheumatic Infection in Childhood." R. R. Struthers and H. L. Bacal. *Can. Med. A. Jour.*, 29: 461-584 (November), 1933.

<sup>7</sup>"Status of Rheumatic Fever and Rheumatic Heart Disease." J. W. Esler, *Med. Annals of D. C.*, Washington, 1: 23-48 (February), 1932.

<sup>8</sup>Quoted in "Rheumatic Fever." Graef, Parent, Zitron, and Wyckoff, *Am. J. M. So.*, 185: 210, February, 1933.

<sup>9</sup>*Ibid.*

<sup>10</sup>*Jour. A. M. A.*, 101: pp. 1086-1087, September, 30, 1933.

<sup>11</sup>"The Value of Salicylates in Prevention of Rheumatic Manifestations." Leech, *Jour. A. M. A.*, September 27, 1930, v. 95, pp. 932-934.

in a study of "The Value of Salicylates in Prevention of Rheumatic Manifestations" came to the conclusion: "The analysis as recorded seems to show that there is a definite advantage in giving daily rations of salicylates to children who represent actual or potential instances of rheumatic heart disease. The evidence is neither marked nor conclusive, but indicates that similar study in a larger number of patients over a longer period of time is worth conducting."

The commonest form in which the salicylates are given is as sodium salicylate. Often sodium bicarbonate is given with this. Strontium salicylate is sometimes used, but has no advantage over the sodium preparation except with a patient whose stomach will not take the sodium salicylate. Acetyl salicylic acid may be used unless there is an idiosyncrasy to this drug. Methyl salicylate or oil of wintergreen has been used, but is no more efficient internally and may cause profound poisoning. The oil of wintergreen is, however, useful for external application. In giving the salicylates by mouth they should be given to the point where symptoms of toxicity appear first. These symptoms are tinnitus, deafness, slight visual disturbances, nausea, and sometimes vomiting. After this point the salicylates may be continued at a dosage sufficient to control the symptoms.

In cases which do not respond to the salicylates amidopyrine may be used.

Neocinchophen may be used in place of the salicylates and may be better tolerated in some cases and is therefore a useful aid in our armamentarium. One must use the same care in its use as in the use of the salicylates.

Mercurochrome has been used intravenously. Young<sup>12</sup> in 1926 reported good results in seven out of ten cases of rheumatic fever. Nonspecific proteins have been used and in the "Therapy of the Cook

County Hospital"<sup>13</sup> are reported as useful "in obstinate cases, especially in those with a tendency to relapse." Streubel<sup>14</sup> states he has obtained good results with the intramuscular injection of a turpentine preparation.

Streubel also follows the method of painting the tonsils with alcohol or spirit of tannin in cases where the acute articular rheumatism follows a tonsillitis, and finds this method effective in counteracting the fever and the articular pains within a short time.

Many other agents have been used in the treatment, but of these let us mention only one more—the intravenous vaccination with streptococci. The conclusions of the study of this method made by Swift, Hitchcock, Derick, and McEwen were: "We do not feel that the results up to the present time have a final character, but must be considered as a first approximation. They are sufficiently favorable to warrant continuation and elaboration of the method. It is especially applicable to two classes of patients: (1) Those with a continuing low-grade infection; (2) those temporarily free from symptoms, but in whom relapses may be reasonably expected."<sup>15</sup>

In speaking of convalescence it should be emphasized that rest should be prolonged and patient should stay in bed for at least three weeks after the fever subsides. Convalescence may be expedited by the usual tonics.

To prevent relapses one thing that may be useful is the removal of foci of infection, such as tonsils, if they are definitely diseased. But this should not be attempted until the patient has completely recovered from the attack.

<sup>12</sup>"The Therapy of the Cook County Hospital," ed. by Bernard Fantus, *Jour. A. M. A.*, v. 102, June 23, 1934, pp. 2100-2101.

<sup>13</sup>*Medisinische Klinik, Berlin*, 29: 1099-1130 (August 11, 1933).

<sup>14</sup>"Intravenous Vaccination with Streptococci in Rheumatic Fever." Swift, Hitchcock, Derick, and McEwen, *Am. J. M. So.*, January, 1931, No. 1, vol. clxxxi, p. 1.

<sup>15</sup>"Beckman's Treatment," p. 144.

# CORONARY ARTERY DISEASE WITH UNUSUAL AND DRAMATIC SEQUELAE\*

DOUGLAS D. VANCE, M.D., Bristol

THE CLINICAL anginal syndrome has been known for many years and medical literature has been flooded with articles on angina pectoris for several generations. Though pathologists recognized and described the occurrence of coronary thrombosis, or cardiac infarction in cadavers fifty years ago, it seems that the clinical recognition of coronary occlusion was not fully established until 1910 and 1911, when adequate descriptions of the typical symptoms and physical signs appeared in German literature. George Dock recognized the condition *during life* in one patient and confirmed it at autopsy as early as 1896, but he never seemed able to get the profession to take his discovery seriously.

I shall not attempt in this brief paper to discuss the therapeutic management, nor the signs and symptoms of angina pectoris and *uncomplicated* cardiac infarction. These are all very accurately described in every treatise on general medicine and cardiology. It is my intention at this time to depart from the usual custom and relate in some detail several cases which stand out in my own experience and which to me have been profoundly interesting and startlingly dramatic. These cases were all seen in their own homes, frequently as emergencies; and necessarily I am unable to present them worked up in detail, with blood pressure readings at all visits, laboratory data, and electrocardiographic reports such as they deserve.

CASE I.—J. S.; Jewish; male; age 57 years.

Patient was seen first on April 2, 1931, complaining of "indigestion" and slight precordial pain. Blood pressure, 145 94; pulse 80; rhythm, normal; heart slightly enlarged; auscultation of heart normal except for duplication of first sound; lips and finger tips slightly cyanotic. Patient very restless and nervous—worried about finan-

cial depression. He was kept in bed ten days. One month later he consulted Dr. Emanuel Libman, a New York cardiologist, who diagnosed an aneurysm of the left ventricle resulting from previous cardiac infarction. Under restricted activity and diet, the patient did well until the spring of 1935, when he had a recurrence of precordial pain following overeating incident to the Pass-over festivities. I told him to remain in bed until I saw him again. The next day, contrary to my advice, he walked to his office where he had a severe attack of coronary occlusion and nearly died before we could remove him to his home by ambulance. Twenty-four hours later he passed away.

This case is unusual in that he developed an aneurysm of the left ventricle as a result of cardiac infarction. It was shown by fluoroscopic, X-ray, and electrocardiographic means. Patient carried on very well for four years in a limited degree and died as a result of a second infarction.

CASE II—T. M. M.; white; male; railroad flagman; age 53 years.

December 8, 1932. Chief complaint "asthma" and cough—"tightness of the chest." Patient was not very sick apparently at this time. Blood pressure, 165 102; pulse, 84, regular. It is possible that he had a small infarction which involved the intraventricular musculature with damage to the bundle of His. Attention is called to the afore-mentioned pulse rate of eighty-four. He has never had that rapid a pulse since.

On October 24, 1933, patient came to the office again, at which time the blood pressure was 135 95; pulse, 58, regular with good volume; Wassermann negative; urine normal.

February 11, 1934, patient became unconscious on his train and had to be taken to his home. This attack was possibly a Stokes-Adams syndrome. Shortly afterward a cardiologist in another city made a diagnosis of rheumatic carditis, heart block, and cardiac hypertrophy. I have never been able to satisfy myself that he has

\*Read before the Sullivan-Johnson Counties Medical Society, January 6, 1937.



rheumatic heart disease as the mitral and aortic valves are normal so far as I can detect.

On October 11, 1934, while opossum hunting the patient had a transient hemiplegia and has had a persistent motor aphasia, undoubtedly due to cerebral embolus. On April 22, 1935, patient became wildly excited with delusions of persecution and attempted to jump out of a second story window. This lasted two days and has not recurred.

July 15, 1936, patient had a coronary attack with violent precordial pain, shock, perspiration, and pain in the left wrist and hand—none in the arm or shoulder. The left hand was cold and cyanotic and in the left radial artery just above the wrist was a palpable elongated embolus completely blocking the artery. The hand later became swollen, but collateral circulation was sufficient and the condition cleared up.

December 12, 1936, patient had a typical hemiplegia of the left side which, I believe, was due to another cerebral embolus. This has about cleared up and I am wondering where the next embolus is going to strike.

This patient has never had a pulse rate over fifty since February, 1934. Here we have a man who has had cardiac infarction resulting in heart block, multiple emboli to peripheral arteries in the wrist, and brain with residual aphasia and mental change—certainly a most dramatic chain of events!

CASE III—W. W. H.; white; male; farmer; aged 45 years.

On April 30, 1934, at 11 A.M., this patient had a sudden attack of pain in the epigastrium while plowing a field. He had to be carried to his home near by. When I arrived I could hear him screaming with pain one hundred yards away. He had vomited and was in great shock. The pulse was weak, but not unduly accelerated. He was bathed with perspiration. He thought he was dying and had his son called from school. The patient would not keep still enough for me to make a satisfactory examination. I finally got him quieted with morphine, but the pain was not relieved. It persisted for hours. The abdomen was boardlike with rigidity and I summoned a surgical consultant, thinking that we were dealing possibly with a perforated peptic

ulcer. Operation was wisely deferred until later and when we examined the patient again that afternoon he had a well marked pericardial friction rub, which, with the preceding symptoms, is almost pathognomonic of coronary occlusion.

Pain and cramping in the abdomen, accompanied by distention, audible and visible peristalsis, persisted for forty-eight hours, resulting from a typical paralytic ileus. With some misgivings I administered two injections of surgical pituitrin and the results were amazing. Following four weeks in bed the patient recovered and has done a moderate amount of work ever since.

Search of the literature reveals three cases of mesenteric embolism secondary to coronary thrombosis proven by necropsy. These were reported by John Parkinson of London, England, in *The Lancet*, January 7, 1928. I firmly believe that my patient had exactly this condition and that he had enough collateral circulation in the mesentery to prevent gangrene of the infarcted loop of intestine.

CASE IV—H. W.; Negro; male; age 60 years.

August 23, 1935. Chief complaint pain in the precordium, dyspnea, edema of ankles. The temperature was 101 degrees Fahrenheit; pulse, 100; the heart was considerably enlarged. There were no murmurs, but a well-marked pericardial friction rub at the apex. The following day the pulse rate had risen to 160 with auricular fibrillation. After several days of digitalis the pulse became more regular, the rate slowed, the edema subsided, and I thought my patient was heading toward recovery. However, my hopes were soon dissipated and on September 12, 1935, I was called in a hurry to find the patient clutching at his heart with his left hand and groaning loudly. He was in extreme shock and evidently suffering excruciating pain in the region of his heart. The patient had also had a cerebral embolus before I arrived and a complete hemiplegia involving the face, muscles of deglutition, right arm and right leg had developed. It was necessary to feed him with a nasal tube for about three days before humanity's frequent bene-

factor, terminal bronchopneumonia, ended the picture.

Here we have an elderly Negro with an initial coronary occlusion and decompensation which improved, only to have a second infarct, probably in another branch of the coronary artery and a simultaneous infarct of the brain.

CASE V—Mrs. F.; white; widow; age 75 years.

Early in the morning of December 27, 1936, I was called to see this old lady. She had complained to her family of "indigestion" for several days and had eaten very sparingly. Thirty minutes before I saw her, she was seized with a violent pain in the right lower quadrant of the abdomen below McBurney's area. The pain radiated down the course of the femoral artery. The right extremity was colder than the left. She was very slightly tender to palpation of the right abdomen, but there was no rigidity and no mass could be felt. She vomited repeatedly and the pain was agonizing. There were no bladder or urinary complaints.

Two hypodermics of morphine were required before she settled down to rest in bed, but she did not get relief from pain. The blood pressure reading was zero systolic and zero diastolic; pulse was 90, slightly irregular and very weak. Auscultation of the heart was very unsatisfactory due to the weakness of the cardiac sounds. She was quite cyanotic and lived but a few hours.

I regret that I did not see this patient again before she expired, and that I did not pay more attention to the arterial circulation in the right leg. She was so bundled up in heavy underclothes, stockings, and outing gowns, and was so restless and cold that I did not feel justified in disturbing her further. Autopsy was refused in this case, as it was in Cases I and IV.

Here we see an old lady who had never been disabled before. She worked about the house every day and was never sick, according to her daughter's statement. I cannot picture any condition other than a cardiac infarction that would give the clinical picture encountered in this case. It is possible that an uncomplicated coronary occlusion would give the atypical pain radiation

seen here, but I feel that a large mural thrombus or clot from the left auricular appendage detached itself and lodged in some artery in the right pelvic region.

While the foregoing cases appear to belong in the "Believe-It-or-Not Ripley" class, I have reported them as accurately as possible with the hope that your interest may be renewed in the apparently increasing number of cases of heart disease—particularly coronary disease. In fact, it may be stated truthfully that heart disease in general is now the "Captain of the Hosts of Death," as twenty-two per cent of deaths reported in the United States in 1934 were due to that cause.

#### CONCLUSION

(1) I should like to call attention to a condition often lost sight of. I refer to the occurrence of coronary occlusion *without pain*. This has been proven repeatedly at autopsy by the finding of recent and old infarcts of the heart muscle in patients who had not complained of pain. I believe that I have encountered the condition on several occasions.

(2) There seems to be a very high incidence of coronary disease in the Jewish people. I have seen two patients have attacks following overindulgence in rich foods, wine, and cold, stuffed fish which they eat at their spring festival.

(3) The vague "indigestion" complained of by patients past forty-five years of age—particularly men—should not be regarded too lightly, especially if there is any suspicion of its being aggravated by exertion.

(4) I want to go on record as favoring a minimum of six or eight weeks absolute bed rest following an attack of cardiac infarction. If the symptoms justify a longer period of bed rest, it should be insisted upon. Too often the physician in charge is prone to yield to the patient's demands and allow him up before his heart is able to stand the strain. I, for one, have been guilty of it, and have had cause to regret it.

(5) Lastly, it is to be deplored that we do not strive for and secure more post-mortem examinations upon our patients who die of interesting and perplexing conditions. The autopsy frequently reveals information which cannot be obtained from textbooks, laboratories, or at the bedside.

## REPAIR OF OLD LACERATIONS AT TIME OF DELIVERY\*

W. T. PRIDE, M.D., Memphis

**A**S DOCTORS, we have not been quite fair to the women from the obstetrical point of view. For years we allowed them to suffer many hours and even days without relief during labor, and then, not content with this, we left them either unrepaired or improperly so from the ravages of our poor attention. For generations we have feared infection and justly so, as even now seven women in every one thousand births die, and forty-two per cent of these deaths are due to infection. But how many die from childbirth indirectly statistics cannot tell. How many are living but are now nervous wrecks from improper attention?

Some years ago I reported a small series of cases under the caption, "Repair of Old Lacerations at the Time of Delivery." Later at Fort Smith, Arkansas, I added one hundred thirty-five more. Today I am reporting the results obtained in 307 cases of repaired old lacerations at the time of delivery. All cases from private practice. I realize that this is not a large number, but I have practiced conservatism; for in the last 2,000 cases only fifteen per cent have had secondary repairs. While the percentage is small, some of these cases had both cervical and perineal repair and a few anterior colporrhaphys.

As time and experience grow, my enthusiasm gathers momentum so that now I feel that all barriers have been cleared and the road is open for more and better work.

With this before me, I have endeavored to bring before you a simple method of repair and care which I have used to great advantage, and I feel sure will add to the sum of human happiness. Dr. Irving W. Potter of Buffalo and Dr. J. L. Bubis of Cleveland have been pioneers in this work and a credit to the profession.

Why should we allow an obstetrical patient to leave the hospital in a neglected

surgical condition, to return later, which she may not do, take a dangerous anesthetic, remain in the hospital about two weeks, and suffer much physical pain not to mention the annihilation of capital? It is true the obstetrician rarely gets value received either in gratitude or money. While the patient will willingly pay \$150 or more for an elective repair, if you should add this amount to the delivery fee, he would think you a robber. But we are here to do the best we can for each and every patient—not "barter for thirty pieces of silver."

I will endeavor to give a few logical reasons why old lacerations should be repaired at the time of delivery.

1. We should always leave our patients in good obstetrical condition.
2. Few patients will return for operation until some trouble presents itself.
3. Due to long hours upon her feet and the many duties of the young mother she may early acquire retrodisplacement and prolapse.
4. Nervousness and irritability occur early and unfit the mother for childbearing.
5. In older patients with lacerations of the cervix, cancer may occur.
6. On account of expense the needed operation will be postponed.
7. When the mother is in good condition, there is practically no added risk.

These are only a few reasons why repairs should be done at the time of delivery, but I think sufficient to justify the procedure.

While our reasoning may be good, still there must necessarily be certain requirements before we can proceed with so serious a task.

1. Hospitalize the patient.
2. Necessary aseptis.
3. Analgesia during labor to prevent exhaustion.
4. A good, careful anesthetist.
5. Know what the injury is before the onset of labor.

\*Read before the Tennessee State Medical Association, Memphis, April 14, 15, 16, 1936.



6. Know anatomy and be able to recognize structures.

7. Remember the parts are swollen and edematous.

8. Dissect for the most part with dull instruments.

9. Do not construct tissues.

10. Build the perineal body with three layers.

11. Use only number two, forty-day chromic gut.

12. Finally have a competent nurse for the aftercare and use five per cent mercurochrome freely.

To answer many arguments we must look at the other side of the question, that is, when should a repair not be attempted:

1. When acute infection is present or suspected.

2. Following excessive hemorrhage.

3. Shock.

4. Any serious organic lesion.

5. Exhaustion of patient.

6. Unsatisfactory anesthetic.

Observing these simple rules will produce satisfactory results.

I am often asked what method of repair is used. There is no difference from the elective. As a matter of fact, the separation of the vaginal mucous membrane is less difficult and the muscles stand out. Healing is rapid, hence the morbidity is not increased.

What about complete lacerations? Have had several cases, too, of long duration (six years since birth of last baby). Results are good.

In repairing a rectovaginal fistula, would warn you, first, against inserting sutures from the rectal side (as formerly done); secondly, dissect back the vaginal mucous membrane and bring the upper surfaces of the rectum together, turning the edges into the rectum, and lastly, dissect back the vaginal membrane and bring the muscle and fascia in layers over the fistula. This should be true of every complete laceration.

Am presenting a few slides for your consideration:

1. Anatomical structure of perineum as related to the obstetrical and gynecologic repair.

2. Note relaxation following a submucous laceration.

3. Note repair and insertion of sutures.

4. Lacerated cervix, note denudation and insertion of sutures.

5. Lacerated and chronically infected cervix. Note nabothian cysts, a side view shows the method of amputation.

Would especially call your attention to the insertion of sutures in the cervical repair. It is generally taught that stitches are not to enter the cervical canal—this is a mistake—for if you wish to obtain a perfect result, the inner fascia and membrane must be drawn up and approximated. In fact, infection is much more apt to occur when these are left without the sutures.

In slide No. 5 you see a chronically infected and lacerated cervix. This is amputated following the birth of the child. It is very necessary that you take into consideration the congestion, swelling, and normal hypertrophy which occur at this time. Many cases are both amputated and repaired when the lacerations are deep and infection confined to the lower portion of the lips. From so few pictures I hope you may get an idea of what I am attempting to convey.

In reviewing these 307 cases I have reached the following conclusions:

1. Under proper conditions as mentioned, old lacerations are safely repaired at time of delivery.

2. The patient should be thoroughly examined prior to delivery.

3. Chronically infected cervixes may be partially amputated at this time.

4. All repairs upon the cervix are easily done by using a Levy's speculum.

5. Healing is really more satisfactory at this time than at an elective operation.

6. Does not increase the morbidity.

7. You send the patient home in a normal surgical condition.

As to repair of lacerations which occur at the time of delivery there should be little discussion. The only contraindications being:

1. Shock, hemorrhage, or some complication affecting the mother.

2. Investion of infection either within or without.

3. No competent assistants.

4. Where antiseptics cannot be obtained. Unless in a hospital, no attempt should be made to repair a cervix not hemorrhaging. I do not inspect every cervix following delivery if we have followed this patient through labor. Having made one or more examinations noting the condition of the cervix, I believe we can state in most of them whether a laceration of any extent is present. If a cervix is slowly dilated and the tissues soft and pliable at all times, it will not be lacerated. This was proven to be true in a series examined.

Some clinicians have and do advocate repairs one week following delivery. There are arguments in favor of this procedure, but if the obstetrician is familiar with the methods of immediate repair, the result is as good and very often better than the interval operation. We should think of the economic side as well as two anesthetics. The hospitals cannot keep the charity patients too long, and the pay patients cannot afford it.

#### DISCUSSION

DR. W. L. WILLIAMSON (Memphis): Dr. Pride has reminded you of a service to your patients, which has been available in recent years, and in very carefully selected cases your patients should have the benefit of such procedures. If you will remember the twelve points he mentions, which should be available before such work is undertaken, and the half dozen contraindications, which, by the way, will include a large number of patients, you can, in a small percentage of cases, *render a really valuable service* to your patients.

There is only one minor criticism which I could offer to any of the statements contained in Dr. Pride's paper and that is his reference to the fascia and membrane of the cervix being drawn up and approximated. There is no fascia in the cervix and the endocervical mucous membrane is nailed closely to the wall of the cervix by the deep racemose glands which penetrate into the muscular tissue of the cervix. However, his method of placing sutures clear through the cervix into the canal and out is eminently correct.

I would like to impress upon you only one point. Under the best care anyone can provide for a patient in labor, she has done a big day's work. One should be very cautious in adding even a seemingly small amount of surgical burden to that of labor.

And remember a live baby and live mother with an old laceration are much better than a live baby and a mother with a perfectly "normal surgical condition" but dead.

DR. VANCE H. BELL (Cleveland, Tenn.): This is a very important paper to me today because I have had a great deal of experience here lately. A lady that I repaired some two years ago for lacerated cervix and perineum is now pregnant and demanding that she have a Cesarean section, that she will be unable to deliver this baby through all this repair. I have told her that she could go ahead and deliver this child just the same as she did her first baby, but it would be harder on her than it was with her second delivery.

The physiology of the muscular tissue of the pelvis is just the same as it is of the arm or anywhere else. Whenever these muscles are torn and hanging loose and relaxed, they undergo atrophy just as if a tendon is torn in the arm and it is allowed to go unrepaired and hang loose for a number of years. It is much harder to repair these old lacerations of four or five years after they have undergone degeneration than it is to repair them immediately after the laceration occurs. The perineum will be left in much better condition.

They will put up the argument that they are going to have another baby, and they want to wait until they are through with all of their confinement cases before they have this work done. Even if they are going to have a baby within twelve months, it is much better that they have these muscles sutured together, and then do an episiotomy, and if they have the laceration sutured again, it will leave them in the same condition as they were before they had the child. I cannot think of any better compliment that could be paid a doctor than to have it said that he left his parturient woman in just as good condition as she was before she had her child.

I would just like to mention one little method of anesthesia the doctor can use in the hospital, that we use in some of our best homes and then have carried back over the hills, over the old crooked rail fences and used in the log cabins, without a nurse, and with very little sterilization around except what you have taken with you, and that is what is known as the pudendal and perineal nerve block. Take a three-gauge needle, go in one centimeter mesial, and posterior to the tuberosities of the ischium and inject eighty cubic centimeters of one per cent novocain on each side; then on each side of the rectum one inch lateral to and one inch inward inject four cubic centimeters of one per cent novocain; then up on each side of the labia, each side of the vagina, inject ten cubic centimeters. This anesthesia will give complete relaxation of the perineum that will last anywhere from forty-five minutes to an hour, and after this

woman has delivered her baby you can do your repair to the perineum without any extra anesthesia; it is absolutely painless, and you will get fewer lacerations with this type of anesthesia than with the old chloroform drop or ether drop method in the home.

One important thing that I would like to stress is in the old laceration to complete the job. If you have a patient with a lacerated cervix that must be repaired, if she has a cystocele you must do an anterior colporrhaphy, repair the perineum, and if she has a retroverted uterus that must be suspended. If you do nothing but repair the cervix and the perineum and leave the retroversion and the cystocele present, your patient will continue to have her pain and neurasthenia.

The doctor says it is a great deal more trouble and expense and people object to the price they pay. That is true. What we should do is have more respect for women of the state of Tennessee, give them better obstetrics and gynecology, and then demand more respect from them by demanding better prices. It is a fallacious idea that people have throughout the state that parturition is a minor procedure and is one that can be handled by an ordinary midwife, though I will admit it is done in some sections of the state. To a person who has never had a child it is indeed of major importance that she be properly delivered and then left in good physical and anatomical condition after she has delivered her baby.

This paper of Dr. Pride's is very interesting to me. He has reimpresed this on my mind; I can go back now and have a great deal more confidence in arguing with these people that they should be repaired immediately after delivery and not wait for several months or until after they have had all their babies.

DR. P. B. RUSSELL, JR. (Memphis): Mr. President and Members of the Society: There is one point I would like to bring up, and that is simply a question of the prevention of some of these lacerations. Most can be prevented, as we do here in our clinics at the university, by treating erosions of the cervix. If it is a very severe case of erosion, it is usually treated with fifty per cent silver nitrate and mercurochrome, five or ten, as you like, and as the condition of the cervix improves, the silver nitrate can be decreased to fifteen, ten, five, etc. This will prevent many of the lacerations at the time of delivery.

I enjoyed Dr. Pride's paper very much, and I would like to reiterate the fact that the patient should be repaired at the time of delivery. This is not an excessive surgical procedure provided that patient has been properly treated during labor. If you let the patient lie there and the contents of the uterus bang away at the cervix for thirty-six to fifty hours, naturally you are going to have an acidosis and retraction ring formed, but if that patient is properly sedated,

if that patient is given 300 grams of carbohydrates, 125 grams of protein, and fifty grams of fat during labor, much of this trouble will be eliminated.

I enjoyed the remarks of my predecessor in speaking of the nerve block. We teach this technique to the students; we demonstrate it to the students, but I disagree with him on one point—we do not find that a one per cent novocain solution is necessary. We use one-half of one per cent. And may I urge that at least three minims of adrenalin be added to each ounce of the solution, because that will prevent most of the reactions. You can go even so far as to do a midforceps operation with a nerve block. We have tried the caudal block, but that is much more difficult. There is never any necessity, to my mind, for the high forceps of station —2, or greater, therefore I mention the midforceps only.

DR. J. R. REINBERGER (Memphis): I rise to discuss this paper because I think I am the man that Dr. Pride referred to who amputated the cervix and has quit doing that type of method since that initial repair.

I also want to say that there has been a definitely decided change in attitude toward what Dr. Pride has brought before us, because many years ago when we broached the problem of repair of old lacerations to the director of the gynecological service, Dr. Maury, he said, "You can do it, but on your own responsibility." So we collected our first fifty cases. I reported them at the Memphis and Shelby County Medical Society, and I asked Dr. Maury to open the discussion. He did, and all he said was: "Well, times have certainly changed because you cannot get away with the figures that were shown."

This number of cases that we reported initially (I do not remember the year) consisted of fifty consecutive cases. The combination consisted of the usual types of repairs encountered, cystocele, rectocele, cystocele-rectocele, third degree lacerations, and one rectovaginal fistula.

At that time I reported this case of cervical amputation. By the method I used at that time I advised that it be discontinued unless more discrimination be given to the amount of tissue left for involution to follow up. We have modified our repairs of cervixes, but we have continued to give our patients this service.

As to when it should be done, we did not feel we should take what someone else had said, so we repaired our fifty cases varying in days, many of them on the first day, the second, third, fourth, fifth, and so on. In the final analysis there was no difference in the end results so far as the patient was concerned, but there was increased hospitalization. The result was we reverted to our immediate care.

In that particular series, as to the morbidity of that group, there were only two cases of sapremia and two cases of pyelitis.



Hospitalization is the big factor, plus the good care that you give to that patient, discussed by Dr. Pride. If the patient is in good condition and if she is free from infection and has all the other things that Dr. Pride has outlined, certainly the patient should have a repair. To date I feel like Dr. Pride does, that we have never had a bad result from infection resulting from our repairs at the time of delivery.

My conclusions are the same as Dr. Pride's, that since the morbidity is practically negligible, and since the results are good, and since hospitalization is shortened, and since anesthesia is not necessary for a repair in the future, there is no reason in the world why every patient should not be given an opportunity for this sort of attention.

A word relative to recent repairs. When I was trained on the service, they would not permit a patient's cervix to be repaired unless there was excessive hemorrhage—recent, I mean. I have seen the time, even though I am kind of like that gentleman who said "that young boy from Memphis," speaking to me yesterday, when that was the case. I am old enough to see the times change relative to that condition. That was the general attitude throughout the hospitals in New York. Now we feel that that is an absolute injustice, that every patient after delivery should have her cervix inspected, sutured if for no other reason than to prevent chronic invalidism and subsequent carcinoma of the cervix in years to come.

I enjoyed Dr. Pride's paper, and I am glad to see that he is keeping up and following up this work, because we feel that we are accomplishing something for our patients, but more than that, we are rendering them a service, at least to the majority of them that we initially started on, who could not have come back into the hospital for repair because of financial circumstances.

DR. W. T. PRIDE (closing): I wish to thank the gentlemen for their generous discussion. I would like to say that in Dr. Williamson's discussion about fascia we probably made a mistake in our pathological nomenclature, but it is subcutaneous connective tissue. You know the endometrium of the uterus lies flat practically upon the muscle of the uterus. I made that remark one night at a gynecological society meeting, and one of my best friends got up and said, "I do not know what he means by flat. It goes with a wave-like motion." I do not mean that. I mean that if you scrape off the endometrium from the musculature of the uterus you have a scar. Now every other membrane in the body, so far as my part of it goes, has subcutaneous connective tissue. Of course, we have connective tissue in all organs of a muscular nature in order to bind them together, so we do have, instead of a fascia, subcutaneous connective tissue.

The doctor brought out local anesthesia. I am glad he did because this gives the man who has not a place to hospitalize his patient and has no anesthetist a chance to do this repair. The trouble about using local anesthetics, caudal anesthesia, sacral anesthesia is that you always have to use instruments. My friend, Pierce Rucker, in Richmond, did one thousand under sacral anesthesia; he had to use instruments in every case. So that is not very desirable.

Dr. Russell brought out keeping the patient in good condition during labor, and I am glad he emphasized that fact because we brought that out in the paper. The patient should have analgesia through labor and not be worn out. If she is worn out, she gets acidotic and acidosis means, most of the time, death to your patient under anesthesia.

## INTESTINAL OBSTRUCTION (ACUTE MECHANICAL)\*

### *Observations Suggested by Recent Publications*

RICHARD A. BARR, M.D., Nashville

IT MAY BE SAID without fear of dissenting opinion that in the case of acute mechanical intestinal obstruction our profession always has been and always will be more honored in its prevention than in its cure. However, it is certainly worth while to consider why Christopher and Jennings, *Annals of Surgery*, February, 1934, could develop the fact that our best hospitals could not individually or collectively show improvement over the statistics for one thousand cases collected by Gibson as operated on between 1888 and 1898 with a mortality of 43.2 per cent.

Some statistics of obstruction are clouded by the inclusion of cases of paralytic ileus (so-called) and of mesenteric thrombosis which have no proper place here, and some are helped by the addition of incarcerated hernia, in which the matters of diagnosis and surgical approach are so much facilitated, besides having any infective process on the peritoneum to some extent mechanically limited.

To what extent statistics are made misleading by the inclusion of neoplasms and intussusception which do not always produce acute (that is, complete) obstruction cannot be determined.

We act stupidly in classifying intussusception under intestinal obstruction. That is a condition capable of definite diagnosis in ninety-five per cent or more of cases. The same thing is true, with proper use of X-ray, of cancer of the colon and of sigmoid volvulus. More stupid still it is to classify any special type of external hernia under a symptom instead of according to the pathology present.

Just why anyone would include under *obstruction* mesenteric infarct and peritonitis (paralytic ileus) it is difficult for me to see. Certainly to report results, under the general head of obstruction, of cases of

both mechanical and paralytic obstruction leads to confusion, as there is an essential difference in pathology, symptomatology and treatment.

Intestinal obstruction is not a disease. It is a symptom, or complication might be a better word, of various conditions and is only justified as a diagnosis as an expression of ignorance, an ignorance often unavoidable of course. It is no more justifiable, scientifically, than is a diagnosis of fever instead of typhoid, typhus or malaria.

But returning to our mutton, to my mind there are several removable factors contributing to the total mortality from conditions causing mechanical obstruction.

First in time if not most important of these preventable factors is delayed operation in surgical conditions that may be complicated by peritonitis which in turn so often after recovery from the acute process leads to mechanical obstruction. Here the surgeon is not responsible in most instances.

A weak spot in the early handling of the various conditions producing obstruction after the obstruction has developed is the widespread belief that fecal accumulation at various points in the colon proper (above the rectum) is of frequent occurrence and not unusual cause of obstruction of the bowel lumen. This fallacy explains many cases of delay often combined with the deliberate use of purgatives.

While we can shift some of the blame to our medical confreres in these particulars, it is probable that we could accomplish more by setting our own surgical house in order than by bleating about the sins of others.

A preventable cause frequently leading to obstruction is the unnecessary use of drainage and here surgery is responsible for the "doubt" which leads to drainage. Where drainage is used we err in its application without care to so place it and to so protect it with omentum or colon as to ex-

\*Read before the Nashville Academy of Medicine.

clude contact with small intestine. The use of gauze even in the cigarette drain is definitely detrimental. It does not drain and it stimulates plastic exudate in excess besides removing epithelium where it adheres to peritoneum.

Again in striving for speed we leave large stumps with exposed raw surfaces. Tying a large fat mesoappendix in one stump instead of several small ones comes under this head. Simple ligation of the appendix itself leaving a projecting stump has been responsible for one death in my experience; that is, I got the case of obstruction. The stump left uncovered from removal of an ovary is another common risk, a risk I have taken to my keen regret. It is noticeable that many cases follow hysterectomies probably because care is not used in covering all stumps, and here the surgeon is responsible in so far as he leaves raw surfaces that might have been peritonized by proper use of broad ligaments, sigmoid or caecum.

A factor in the increase of final high mortality associated with mechanical obstruction, in my opinion (and I put this forward with all humility as to the value of that opinion), lies in the great interest developed in recent years as to the nature of the lethal agent or agents produced by obstructed bowel. In pursuing this elusive substance we have apparently stopped considering the gross pathology, and have been marking time in expectation that discovery of this ultimate cause of death will lead to some simple solution of the cure to be applied. We will be no further advanced in the cure of strangulation of the bowel when we have solved the chemistry of all the lethal agents present than we are now, and we may continue to go from bad to worse if we sit in openmouthed admiration of (and bask in the reflected glory of) the scientific skill in research of some members of our profession instead of realizing that nothing of practical value has been produced or claimed.

Those of us whose knowledge is perforce limited to what is really important from a surgical point of view, and that is the pathological changes that can be seen at operation or post mortem, seem to have quit consideration of the practical features and

spend our time weighing the relative values in the confusing and contradictory evidence brought out by the different laboratories. Our very ignorance of laboratory technic seems to make us particularly keen to attempt to show our intelligence by an ability to discuss those features of obstruction which are most mysterious and most heatedly controversial among the laboratory scientists themselves. At least, the mechanics and the pathology of obstruction have been known for years and no possible laboratory evidence can add anything to the essentials for intelligent surgical treatment in which lies the hope of such improvement as surgeons can offer.

The sooner we begin to feel that it is our obligation to make a pathological diagnosis, so to speak, the sooner will both surgeons and their medical brethren come to an appreciation of what dangers confront us and what must be done to avoid them.

Along this same line of endeavor, in my opinion, us plain surgeons should drop the use of the terms adynamic and paralytic ileus and just say "peritonitis," for that is the pathology in every case of that type that can be proved to be anything human.

We love to play with such terms because they carry a vague suggestion of learning and can be applied to include side products of our vision (or imagination would frequently be a better term) not yet sufficiently tangible to be given a commonplace name.

I am convinced that some, if not most of the increase in mortality in recent years, has been due to the generally advocated blind use of enterostomy, based on the belief that a safe easy method of resuscitating those practically dead from both mechanical obstruction and peritonitis had been found.

When a surgeon can on good authority satisfy himself with the easy diagnosis of just "intestinal obstruction" and is in his own mind and on equally good authority justified in the application of mere enterostomy for more or less routine use in relief of acute symptoms (and he counts on permanent relief in a large per cent) he will inevitably wind up in the disillusionment which comes to all who take the easiest way to avoid mental and spiritual strain.

Do not get the idea that I believe that a



satisfactory enterostomy (that is properly placed on the bowel, that will drain the bowel lumen and not leak into the peritoneal cavity, that can be kept from excoriating the belly wall, that will not starve the patient and can be easily closed when no longer needed) is easily made. However, any surgeon can ultimately make a diagnosis of obstruction and anyone with the slightest surgical training can make some kind of enterostomy, so no wonder reports by prominent surgeons of moribund cases brought back to life by the blind procedure led to omission of diagnostic effort (we all hate concentrated mental exertion) and to avoidance of the tremendous nerve strain involved in the proper surgical handling of these desperate cases with consequent increased general mortality. I have used enterostomy with benefit, but only when cases were selected for its use where known conditions made it justifiable and not always then. Used blindly it has never been helpful, and under no conditions has it ever given the moribund a new lease on life under my observation. It is more and more my belief that where blindly used with apparent benefit enterostomy is not needed, and just as satisfactory results could have been obtained by strictly medical measures.

Colp, in *Annals of Surgery* for last December, reviews the use of enterostomy at Mt. Sinai Hospital, New York City, and decides it has no place whatever in paralytic ileus. In mechanically obstructive conditions he finds it resulted in relief of acute symptoms followed by spontaneous cure of three cases due to pelvic peritonitis with localized inflammatory adhesions. He also found it apparently useful in cancer of the colon, though many would here, he says, prefer colostomy. With these exceptions he finds (and his statistics bear him out, eighty-five per cent mortality) enterostomy of no value in the experience of that hospital. These exceptions are in my experience just the cases which yield to morphine, fluids, and gastric lavage.

The selection of a case for enterostomy causes me more anxiety than any other responsibility in mechanical obstruction, and I approach the actual technic of the procedure with more reluctance than I would in-

testinal resection or partial gastrectomy for that matter. The proper location cannot be obtained by hazard, and the technic of fixation and control justifies all the skill and thought one can bring to bear. Just here I wish to say a word about bringing the enterostomy tube through the omentum as widely advertised at one time. That, as anyone who practices it will soon find out, as Talleyrand once said to Napoleon, "Worse than crime, it is a blunder."

That it has no advantage over medical measures is likewise my opinion of open operation for massed adhesions, particularly where operation is limited to mere separation of the adhesions without resection or enteroenterostomy. To my mind, there is no indication either for enterostomy or for other surgery for the acute symptoms in cases of obstruction resulting from adhesions following soon after abdominal operation whether this was done in the presence of or in the absence of peritonitis, for a strangulating band has not had time for development.

Conditions that produce strangulation of the bowel or which lead to local necrosis and perforation (foreign bodies, gallstones, etc.) are urgently surgical of course always for that reason, but not always because they obstruct the lumen. High obstruction of the small bowel no doubt is urgent on the basis of obstruction and its lethal agents alone, but such obstructions are rare except after stomach surgery.

On the other hand, stricture of the bowel benign or malignant, some cases of obturation, cases of massed adhesions, and cases of kinking offer no immediate threat of a destructive process. In these cases the acute symptoms are apparently the result of violent peristalsis resulting in edema of the whole thickness of the bowel wall, but particularly of the mucous membrane with resulting damage to that structure followed by absorption of contained poisons and by final complete occlusion of the already narrowed bowel lumen. Ultimately the lethal agents get in their work here, but the process is slow unless as already stated the obstruction is high.

To repeat: The dangers inherent to conditions resulting in obstruction (except

very high obstruction) come mainly from two factors: (1) damage to the blood supply at the sight of obstruction with resulting gangrene or necrosis and (2) violent rush peristalsis with resulting congestion and edema, followed by absorption of poisons from the lumen of the bowel and the passage of infection through the bowel wall to the peritoneum.

For the former I believe immediate surgical relief at the point of obstruction is demanded. In the absence of this strangulating or otherwise destructive process I believe the acute symptoms and acute pathology can be relieved by checking rush peristalsis completely with morphia. If these beliefs are correct or if either of them is correct a pathological diagnosis is essential for intelligent treatment especially since enterostomy has been proved futile in many cases and with definite dangers in all.

Since I have been advocating in these nondestructive conditions and in peritonitis the use of morphine in full physiological dose over a long period of years, it is some comfort to find Orr of Kansas City in *Annals of Surgery* for November, 1933, stating that several investigators (Plant and Miller, Grulin and Robinson, among others) had convincingly established by their researches that morphine had a stimulating effect on bowel muscle with resulting increase of tone. Orr repeated their experiments and decided that to prevent overdistention of the small intestine morphine is indicated in the treatment of acute peritonitis, intestinal obstruction, and (what he describes as) so-called paralytic ileus. He also decides that maximum clinical benefits can be obtained only by producing complete narcosis. He finds no drawbacks to its use, and that it does not interfere with bowel movement in the way of *normal* (not rush) peristalsis.

While I cannot exactly visualize a paralyzed gut having or being given any tone, Alonzo Clark proved years ago that cases of peritonitis could take enormous doses of opium or its alkaloids and survive both the peritonitis and the opium. He also proved that patients treated in this way for two

weeks or more had spontaneous bowel movements as the infection wore off.

I use morphine freely after any serious abdominal operation, and make no effort to move the bowels until there is a spontaneous expulsion of gas and of fluid, more or less colored, which is mainly some of the plain water (proctoclysis) that has been given routinely per anum every four hours.

The most violent purgative I use either before or after any abdominal operation is a soapsuds enema, but in spite of the free routine use of morphine, for pain and for nervousness, after all operations, I have never noticed any hang-over in the way of difficulty in getting muscular response once traumatic or infective paralysis has been given proper time to wear off.

If you will pardon further personal reference I will give you one or two personal observations on which to some extent my belief with regard to the causation and the proper handling of obstruction is founded.

When one has referred to his experience of recent years it is usually backed up by the report of great numbers of cases. Unfortunately, experience based on a large individual work prevents the surgeon from having time or energy to do much thinking as he goes along. Possibly the reason some men seem to be taught so little by an enormous amount of work is that they are too tired physically, mentally, and spiritually to see what is right before them. Certainly anyone with any power of critical observation has noticed this defect in some of our authorities. On the other hand, an effort to draw conclusions from mere records made by people of all grades of intelligence, experience, and honesty is more than futile except in the matter of mortality.

This kind of work gets even less valuable when the records are reviewed by the inexperienced imbued mainly with the idea of proving some predetermined conclusion of someone in authority.

Such conclusions as I have arrived at I can assure you have not been reached without ample periods of restful leisure to such mental equipment as I possess.

Since my return to private work after the war I have had no case of postoperative

obstruction develop in my hospital except following operation for obstruction, and I have had no cases brought back for relief of postoperative obstruction.

I attribute this freedom from postoperative obstruction to care in making small pedicles where possible, to care in covering all pedicles of any size (as after hysterectomy), to the omission of all packing, to the omission of drainage wherever possible, to the limitation of drainage to local use only, to the omission of the cigarette or other gauze drain under all conditions, to the use of stab wounds for drains where drains cannot be avoided, to the placing of drains so as to avoid all possible contact with small intestine, to the use of omentum wherever possible for isolation of drainage tract, to the early complete removal of drains, to the free use of morphia after operation, and to lack of fear that my patients will starve to death, this last being based upon the experience of the late Mr. McSwiney, mayor of Cork, who required seventy-four days to starve himself to death.

I have had one case of obstruction (which I saw at the patient's home) following, two years after, and due to the removal of a small ovarian cyst with simple ligation of the pedicle incidental to an appendix operation, and there has been in another surgeon's work a case that I know of of obstruction following a hysterectomy done before the war. There may have been other cases operated on by other surgeons that I do not know about.

Since postoperative obstruction did occur in the years that I used the Murphy plan of placing a drain in the pelvis plus Fowler's position in the treatment of peritonitis, and during the years that I used drainage more freely for a longer time and more carelessly than at present, and during the years in which I thought it important to surround a local drain with gauze packing, there is possibly some significance attached to my more recent experience.

My experience with the use of morphia in postoperative obstruction was gained for the most part in the period before the war, but I have had a fair number of cases of can-

cer of the colon, a few cases of diverticulitis, and a few cases of tuberculous disease of the bowel come to me with symptoms of acute intestinal obstruction. These have without exception been treated with morphia, proctoclysis, gastric lavage (I have never gotten any special benefit from the Wangenstein technic; in fact, indwelling tubes in organs or wounds are an abomination, in my opinion) plus dextrose and sodium chloride intravenously. I have never failed to relieve all acute symptoms in cases proved to be of these types by such measures and so have not for twenty years done an enterostomy or colostomy as the first surgical step in any of these conditions. Possibly this experience too has some significance.

I will not take your time with technical description of treatment, medical or surgical, but in conclusion I make the following suggestions with all gentleness and all due humility:

(1) That the term paralytic ileus be dropped. "Eilein" means to twist. Paralysis neither twists the gut nor causes the patient to writhe.

(2) That the word obstruction is out of place for the condition of the bowel found in peritonitis. Paralysis is a better term and less apt to lead to confusion of ideas.

(3) That in acute conditions enterostomy saves few lives that could not be saved by medical measures. If strangulation is present enterostomy is futile; if strangulation is absent enterostomy is not needed.

(4) That neither enterostomy nor colostomy is needed for relief of the acute symptoms intervening upon the chronic obstruction of stricture, benign or malignant.

(5) That in relying on that valuable quality of the peritoneum—its capacity to localize infectious processes by plastic exudate—we are playing with a two-edged sword.

(6) That in every possible way traumatism to the peritoneum with removal of its epithelium be avoided, and that where adhesions must result they be confined as far as possible to the colon and omentum.



# THE JOURNAL

OF THE

TENNESSEE STATE MEDICAL ASSOCIATION

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H. H. SHOULDERS, M.D., Editor and Secretary

APRIL, 1937

## EDITORIAL

### SOMETHING SHOULD BE DONE ABOUT THE MAN OF FIFTY!

It is said that the late Dr. Lafayette B. Mendel who, for eighteen years, was a member of the Council of Pharmacy and Chemistry of the American Medical Association outlined what he considered to be the outstanding service that could be rendered the public by the medical profession. His statement is as follows: "Something should be done about the man of fifty. The medical profession as well as public agencies have given a great deal of attention to babies and children. There are permanently organized public drives on tuberculosis, cancer, and syphilis, but nobody seems to be paying much attention to the continually increasing 'degenerative' conditions among middle-aged men. All these conditions—heart disease, kidney trouble, hardening of the arteries, high blood pressure, diabetes—may be alleviated. The physician can actually help almost any man with either an incipient or chronic condition. The problem is to get men to go to the doctor *in advance* of trouble. But it is customary for men not to do anything about their health until definite symptoms appear. *We ought to change that.*"

E. R. Squibb & Sons, under the leadership of Dr. John F. Anderson, vice-president, has inaugurated an advertising campaign designed to change that bad practice and get the man of fifty to consult his doctor.

The writer has before him now some of the advertising matter that is to appear in magazines with national circulation, such as the *Saturday Evening Post*, *Time*, *Fortune*, and *Hygiea*. These advertisements are attractive and well worded. They are calculated to make an impression on the man of fifty. It certainly is a movement in which the medical profession can join wholeheartedly.

Mortality statistics do not indicate that any definite good has been done up to now in our campaign for the control of cancer. There certainly is an opportunity for the medical profession to do good when the man of fifty presents himself for a checkup. There is opportunity, too, for the doctors to join in this movement by taking advantage of every opportunity presented to advance its purposes.

E. R. Squibb & Sons and Dr. Anderson deserve commendation and congratulations for having inaugurated a movement with such potentialities for good.

The stress and strain of the last several years on the man of fifty years, particularly if he is a conscientious, successful man, have been terrific. His burdens have been multiplied and there have been few words uttered calculated to encourage him in his efforts.

Let's take some steps to preserve and prolong the life of the man of fifty who now has maturity and the wisdom, born of experience, that may be of incalculable value to the more impulsive youth.

### THE AGITATORS CONTINUE THEIR AGITATION

Much is happening to indicate that the agitators are going ahead.

We have before us a recent issue of *The Nation's Agriculture*, a magazine with national circulation among the agricultural population. It contains a story entitled "The Doctor."

The story purports to give the results and the significance of a farm survey in *Utah*. In the second paragraph of the story there appears a quotation from the report of the Committee on the Cost of Medical Care. Further along there are quotations from Dr. Michael M. Davis of the Julius

Rosenwald Fund. The entire story indicates that the propagandists are still actively at work and are going right into the farm bureau organization throughout America. There is little to indicate that the surveyors surveyed anything except the literature of the propagandists.

It might be wise for the doctors of Tennessee to contact the officers of local farm bureaus in the counties throughout the state and find out what they are thinking about.

We have the impression that the membership of the farm bureaus, in the main, are sensible, conservative people. They might unwittingly accept all the statements that appear in the propaganda as facts. That would be a tragedy, as we all know.

In the State of Pennsylvania there is a struggle going on for the passage of a health insurance bill.

On this subject Dr. Frederick L. Hoffman, who is not a medical doctor, but a doctor of philosophy, wrote a series of articles entitled "Compulsory Health Insurance and Disease Control." In this series of articles Dr. Hoffman analyzed the mortality and morbidity statistics from European countries who have had either state medicine or compulsory health insurance for a considerable period of time. The results of his studies are that there is nothing in the mortality or morbidity figures to indicate that the health of the people was improved in any degree by the setting up of enormous bureaucracies to administer medical care.

This series of articles has been published in pamphlet form and may be had by communicating with Dr. Dwight Anderson, Director, Public Relations Bureau, Medical Society of the State of New York, 2 East One Hundred Third Street, New York City, price ten cents each.

#### WHO IS THE BEST DOCTOR?

The question is often asked by lay people, "Who is the best doctor in town?"

The President of the New York State Medical Association recently wrote a charming article in answer to this question.

The answer in brief is "your doctor." He is your best doctor for several reasons:

First, he is familiar with your history and, in many instances, your family history. In the second place, he is interested in you as a neighbor and a patron. This knowledge and this interest would suffice to compensate for a considerable lack of scientific ability on the part of your doctor if such a lack exists. If *your doctor* happens to be of average intelligence and an average student of medicine, then he is far better than the average doctor for your individual needs.

To me this is one of the best written statements I have read in sometime.

If this thought were put over to the public, there would be less effort to get the government back of some scheme that would give every person "a doctor" instead of "his doctor."

## DEATHS

Dr. Otis S. Warr, Memphis; University of Nashville, Medical Department, 1907; aged 56; died March 22 of pneumonia.

Dr. C. H. Johnson, Lexington; University of Nashville, Medical Department, 1890; aged 68; died April 1 after a short illness.

Dr. J. K. Farris, Manchester; University of Nashville, Medical Department, 1899; aged 71; died April 1 after an illness of two years.

Dr. E. M. Fleener, Johnson City; Chattanooga Medical College, 1898; aged 67; killed in an automobile wreck March 29.

## RESOLUTIONS

BORN MAY 10, 1885; DIED OCTOBER 31, 1936

These are the dates appearing on a monument in the Decaturville, Tennessee, cemetery erected over the grave of Dr. James Logan McMillan. To a stranger this would signify the age alone, but to those who knew him, these mean more than the age of a man. The name recalls an active life of

twenty-nine years in the practice of medicine amidst the hills of Decatur County.

For years to come the memory of his deeds, kindly advice, professional services, and the personal sacrifices thereby entailed will be reverently whispered at the firesides of hundreds of former patients, so tenderly and lovingly will this memory be cherished by both those in lofty positions as well as those in humble environments.

Truly a loyal and faithful doctor, a splendid friend has gone to join the Great Physician of the Celestial City, in consultations lasting throughout ceaseless ages and eternities without end, dealing with subjects not of this sordid and diseased world, but of joys and pleasures never before known.

Dr. Logan McMillan, educated at the University of Tennessee, was the son of Dr. John McMillan, deceased, and the father of a son recently graduated in medicine. His wife, son, and mother survive him.

The Tri-County Medical Society, of which he was one of the charter members and a staunch supporter, has sustained a loss of which we all shall be conscious. He was a friend indeed to all the profession, scrupulous always in his contacts, ethical in the highest degree, respecting the rights and prestige of his colleagues, his pleasing personality, friendly greeting and courteous manners will ever be remembered.

Robert Louis Stevenson's "Eulogy of the Doctor" aptly applies:

"He was the flower of our civilization and when that stage of man is done with, only to be marveled at in history, he will be thought to have shared but little in the defects of the period and to have most notably exhibited the virtue of the race."

This society, in recognition of his ability, success in life and the grief and sorrow coming at his death, desires to express its respect and great admiration of him by making this tribute of permanent record and furnishing a copy of same to his family and the TENNESSEE STATE MEDICAL JOURNAL.

G. D. BRANDON, M.D.

L. A. LUNA, M.D.

W. O. BAIRD, M.D.

L. C. SMITH, *Secretary*.

## WOMAN'S AUXILIARY

President-----Mrs. Theodore Morford  
Nashville

President-elect-----Mrs. W. T. Black  
Memphis

Press and Publicity-----Mrs. Oscar Nelson  
Nashville

As the April issue of the JOURNAL goes to press the thoughts and eyes of all auxiliary members are turning toward Knoxville and the state meeting to be held there on the thirteenth, fourteenth, and fifteenth of April. So alluring are the plans that were published in the March JOURNAL that I really do not see how any of us can resist the cordial invitation of the Knox County Auxiliary. I hope that many of us will meet there, and learn to know in person those whose names have become familiar to us through this column and through our knowledge of their work in the auxiliary.

### *Shelby County*

On Tuesday, March 16, at 6:30 P.M., seventy-five members of the Memphis and Shelby County Medical Society and their wives attended an old-fashioned turkey dinner with all the trimmings at the University Center. The late Dr. Otis Warr, beloved president of the Medical Society, presided. After the dinner the members of the Medical Society held their regular scientific meeting and the auxiliary held its regular monthly meeting. At the auxiliary meeting plans were made for the annual card party, which will be given at the Nineteenth Century Club on April 7. The state meeting to be held in Knoxville was brought to the attention of the members and delegates and alternates were asked to attend. Mrs. W. T. Black and Mrs. W. T. Braun, who represented the Ninth Congressional District at the meeting of the Tennessee Society for the Control of Cancer in Nashville on March 15, gave reports of that meeting. A unit of the Society for the Control of Cancer is being organized and a call to arms to fight cancer has been issued to every woman's organization.



*Rutherford and Cannon Counties*

The Woman's Auxiliary to Stones River Academy of Medicine held a meeting at the Nurses' Home of the Rutherford Hospital with Mrs. J. B. Black and Mrs. W. V. Sanfords as hostesses. The speaker in the afternoon was Dr. W. T. Robison, who spoke on the "Progress of Surgery," outlining the development of surgery from the earliest and crudest form to its present high development. Mrs. Matt Murfree, president of the auxiliary, presided at the meeting, and after the business session there was a social hour during which the hostesses served tea and sandwiches.

*Davidson County*

The Woman's Auxiliary to the Nashville Academy of Medicine and Davidson County Medical Society met on Friday morning, April 2, at the Y. W. C. A. Dr. Howard King was the speaker, his subject being "Cancer Control." During his talk he outlined the plan for the education of the laity in the fight to control cancer, and spoke of the great work which the "Woman's Field Army for the Control of Cancer" may be able to do. The auxiliary voted to make a contribution of ten dollars to the Society for the Control of Cancer in addition to the membership in the society which individual members of the auxiliary are taking. Delegates were elected to the state meeting to be held in Knoxville, Mrs. W. Scott Farmer and Mrs. Lynch Bennett being elected delegates, and Mrs. D. W. Smith, Mrs. E. L. Rippey, Mrs. George Carpenter, Mrs. J. D. Lester, Mrs. Eugene Orr, and Mrs. James T. Hayes being elected alternates.

## NEWS NOTES AND COMMENTS

Dr. W. Frank Fessey and Dr. Ray O. Fessey of Nashville announce the removal of their offices on April 1, 1937, from the Bennie-Dillon Building to 2413 West End Avenue.

## MEDICAL SOCIETIES

*Anderson County:*

The Anderson County Medical Society held its regular monthly meeting in Clinton on April 5, 1937.

The scientific part of the program consisted of a paper by Dr. J. S. Hall on "Pneumonia in Elderly People." This paper was discussed freely by all members present.

Dr. DuBard was elected associate secretary to serve in Dr. Barton's place, Dr. Barton being absent for a few months while taking postgraduate work at Vanderbilt.

J. S. HALL,  
*Secretary.*

*Campbell County:*

The Campbell County Medical Society held its regular monthly meeting in the Peoples Bank in LaFollette on February 25. Dr. R. W. Lewis, vice-president, was chairman.

Members present were Drs. R. W. Lewis, J. P. Lindsey, J. W. Presley, R. L. Galaher, W. B. Rose, and R. J. Buckman.

Dr. W. B. Rose read a very excellent paper titled, "Memoirs of the Campbell County Medical Society." The paper told of the personal memoirs of Dr. Rose, who is eighty-one years old, and of his coming to LaFollette over fifty years ago. LaFollette then was called "Big Creek Gap," and was a pass from north to south through the Cumberland Mountains. His description of the town and surrounding country at that time and of his early struggles in building his practice was very interesting.

Dr. Rose told of the beginning of the present Campbell County Medical Society. In 1892 a group of physicians living in and around LaFollette banded together for the purpose of standardizing fees and as a means of bringing together more closely those members of the medical profession in this community. This group adopted the name of the LaFollette Medical Society. Several years later, as physicians in the outlying sections of the county and those

*(Continued on page one forty-three)*

## LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. W. L. Williamson, 915 Madison Avenue, Memphis.  
 Vice President for West Tennessee—Dr. J. E. Powers, Jackson.  
 Vice President for Middle Tennessee—Dr. J. O. Walker, Franklin.  
 Vice President for East Tennessee—Dr. Lee K. Gibson, Johnson City.  
 Secretary—Editor—Dr. H. H. Shoulders.  
 Assistant Secretary—Editor—Dr. W. M. Hardy.

## TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville.  
 Dr. A. F. Cooper, Goodwyn Institute Building, Memphis.  
 Dr. E. R. Zemp, Walnut Street, Knoxville.  
 Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.  
 Dr. John B. Steele, Volunteer Building, Chattanooga.

## COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.  
 Second District—Dr. S. R. Miller, Knoxville.

Third District—Dr. Hiram A. Laws, Jr., Chattanooga.  
 Fourth District—Dr. J. T. Moore, Algood.  
 Fifth District—Dr. John W. Sutton, Petersburg.  
 Sixth District—Dr. L. W. Edwards, Nashville.  
 Seventh District—Dr. C. D. Walton, Mt. Pleasant.  
 Eighth District—Dr. J. R. Thompson, Jackson.  
 Ninth District—Dr. E. H. Baird, Dyersburg.  
 Tenth District—Dr. W. B. Burns, Memphis.  
 Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

## Delegates to the American Medical Association—

Dr. E. G. Wood, Knoxville; East Tennessee.  
 Dr. H. H. Shoulders, Nashville; Middle Tennessee.  
 Dr. H. B. Everett, Memphis; West Tennessee.

## Alternates—

Dr. E. T. Newell, Chattanooga; East Tennessee.  
 Dr. J. O. Manier, Nashville; Middle Tennessee.  
 Dr. E. C. Ellett, Memphis; West Tennessee.

## OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	VICE PRESIDENT	SECRETARY-TREASURER
Anderson	H. D. Hicks, Clinton	J. Sam Taylor, Clinton	J. S. Hall, Clinton
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Blount	H. A. Calloway, Maryville	G. D. Lequire, Maryville	W. C. Crowder, Maryville
Bradley	J. Lake McClary, Cleveland	W. C. Stansberry, Cleveland	C. H. Taylor, Cleveland
Campbell	G. B. Brown, Jellico	R. W. Lewis, Westbourne	R. J. Buckman, LaFollette
Carroll	E. W. Hillsman, Trezevant	A. R. Collins, Watauga Valley	J. H. Williams, McKenzie
Carter	O. F. Agee, Elizabethton		E. T. Pearson, Elizabethton
Chester, Henderson, and Decatur	H. T. Pitts, Henderson		L. C. Smith, Henderson
Cumberland	J. E. Hampton, Newport	W. C. Ruble, Newport	Fred M. Valentine, Newport
Davidson	E. W. Mitchell, Crossville		V. L. Lewis, Crossville
Dickson	Jack Witherspoon, Nashville	T. D. McKinney, Nashville	J. P. Gilbert, Nashville
Dyer, Lake, Crockett	L. F. Loggin, Charlotte	B. G. Marr, Dyersburg (Dyer)	R. P. Beasley, Dickson
	J. P. Baird, Dyersburg	W. L. Sumner, Ridgely (Lake)	C. L. Denton, Dyersburg
		J. O. McKinney, Friendship (Crockett)	
Fayette and Hardeman	L. D. Pope, Grand Junction	F. K. West, Rossville	A. Richards, Bolivar
Fentress	C. A. Collins, Wilder	A. H. Crouch, Forbus	J. P. Sloan, Jamestown
Franklin	Alfred Parker Smith, Winchester	Geo. E. Bogart, Sherwood	John M. Hardy, Sewanee
Gibson	H. P. Clemmer, Milan	J. W. Allen, Rutherford	F. L. Roberts, Trenton
Giles	J. G. Waldrop, Lewisburg	A. W. Deane, Pulaski	T. F. Booth, Pulaski
Greene	W. T. Mathes, Greeneville	M. A. Blanton, Mosheim	I. F. Phillips, Greeneville
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	R. A. Purvis, Morristown	P. L. Henderson, Morristown
Hamilton	E. A. Gilbert, Chattanooga	A. M. Patterson, Chattanooga	J. Marsh Frere, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	Otis Whitlow, Savannah	J. V. Hughes, Savannah (Hardin)	O. H. Williams, Savannah
		V. H. Crowder, Lawrenceburg (Lawrence)	
		Paul Wylie, Hohenwald (Lewis)	
		J. W. Frost, Linden (Perry)	
		J. T. Keeton, Clifton (Wayne)	
Haywood	F. P. Hess, Bells	John P. Shearon, Gates	Roy M. Lanier, Brownsville
Henry	A. F. Paschall, Puryear	R. J. Perry, Springville	R. Graham Fish, Paris
Hickman	L. F. Pritchard, Only	C. V. Stephenson, Centerville	W. K. Edwards, Centerville
Humphreys			W. W. Slayden, Waverly
Jackson	J. D. Quarles, Whitleyville	C. E. Reeves, Gainesboro	F. B. Clark, Gainesboro
Knox	Henry Clay Long, Knoxville	A. R. Garrison, Byington	Jesse C. Hill, Knoxville
Lauderdale	J. R. Lewis, Ripley	J. H. Nunn, Ripley	Thos. E. Miller, Ripley
Lincoln	R. E. McCown, Fayetteville	R. T. Odom, Fayetteville	M. F. Brown, Fayetteville
Loudon	Halbert Robinson, Lenoir City	J. A. Mourfield, Lenoir City	J. R. Watkins, Loudon
Macon	D. D. Howser, Lafayette	P. East, Lafayette	J. Y. Freeman, Lafayette
Madison	J. C. Pierce, Mercer	John E. Powers, Jackson	S. M. Herron, Jackson
Maury	H. C. Busby, Columbia	C. O. Fowler, Spring Hill	D. B. Andrews, Columbia
		R. S. Perry, Columbia, R. F. D.	
McMinn	Boyd McClary, Etowah		D. F. Seay, Englewood
McNairy	John R. Smith, Selmer		H. C. Sanders, Selmer
Monroe	R. C. Kimbrough, Madisonville		E. P. Bowerman, Madisonville
Montgomery	Paul E. Wilson, Clarksville	M. L. Shelby, Clarksville	I. E. Hunt, Clarksville
Obion	M. T. Tipton, Union City		W. B. Harrison, Union City
Overton			A. B. Qualls, Livingston
Polk	A. W. Lewis, Copperhill	H. P. Hyde, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	R. L. Witherington, Cookeville	Thurman Shipley, Cookeville
Roane	J. C. Fly, Kingston	L. A. Killeffer, Harriman	W. W. Hill, Harriman
Robertson	E. W. Adair, Springfield	W. P. Stone, Springfield	J. E. Wilkinson, Springfield
Rutherford	T. J. Bratton, Woodbury	John F. Cason, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	Pitney Phillips, Robbins	Milford Thompson, Oneida
Sevier	R. J. Ingle, Sevierville	C. P. Wilson, Sevierville	R. C. Kash, Sevierville
Shelby	O. S. Warr, Memphis	M. W. Seairight, Memphis	A. F. Cooper, Memphis, Secretary
	J. J. Hobson, Memphis, President-Elect		J. H. Francis, Memphis, Treasurer
Smith	W. B. Dalton, Gordonsville	W. F. Boze, Carthage	Thayer S. Wilson, Gordonsville
Sullivan, Johnson	J. A. Delaney, Bristol	Fred M. Duckwell, Kingsport (Sullivan)	T. R. Bowers, Bristol
		J. R. Butler, Mountain City (Johnson)	
Sumner	J. M. Oliver, Portland	C. H. Donoho, Portland	W. M. Dedman, Gallatin
Tipton	A. J. Roby, Covington	J. J. Fleming, Atoka	H. C. Currie, Covington
Warren	John S. Harris, McMinnville	E. L. Mooneyham, Rock Island	John T. Mason, McMinnville
Washington	E. T. Brading, Johnson City	G. J. Budd, Johnson City	Carroll H. Long, Johnson City
Weakley	J. E. Taylor, Dresden	T. W. Jones, Martin	P. W. Wilson, Dresden
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, Route 3	A. F. Richards, Sparta
Williamson	J. Knox Galloway, Franklin	W. F. Roth, Jr., Franklin	K. S. Howlett, Franklin
Wilson	M. H. Wells, Watertown	R. N. Buchanan, Jr., Lebanon	R. B. Gaston, Lebanon

## COMMITTEES

The following is a list of the standing committees of the Tennessee State Medical Association provided for in the constitution and by-laws and appointed by the proper authority, together with some special committees appointed under the authority of a resolution by the House of Delegates.

Some of the committees are appointed for a definite period. In such instances the appointment of the committeeman expires with the meeting of the House of Delegates in the year stated opposite his name.

### COMMITTEE ON SCIENTIFIC WORK

H. H. Shoulders, Chairman, Nashville.  
A. F. Cooper, Memphis.  
Frank Harris, Chattanooga.  
A. H. Lancaster, Knoxville.

### COMMITTEE ON PUBLIC POLICY AND LEGISLATION

L. W. Edwards, Chairman, Nashville (1939).  
E. W. Cocke, Memphis (1941).  
Battle Malone, Memphis (1940).  
Tom Barry, Knoxville (1938).  
T. R. Ray, Shelbyville (1937).

### LIAISON COMMITTEE

W. C. Dixon, Chairman, Nashville (1941).  
W. P. Wood, Knoxville (1940).  
Hiram A. Laws, Chattanooga (1939).  
Tom Mitchell, Memphis (1938).  
J. L. Raulston, Knoxville (1937).

### STATE TUBERCULOSIS HOSPITAL COMMISSION

W. S. Rude, Chairman, Ridgetop.  
O. N. Bryan, Nashville.  
C. M. Oberschmidt, Memphis.  
J. L. Hamilton, Chattanooga.

### HOSPITAL COMMITTEE

D. R. Pickens, Chairman, Nashville.  
E. H. Baird, Dyersburg.  
H. Quiggs Fletcher, Chattanooga.  
Kyle Copenhagen, Knoxville.  
H. B. Everett, Memphis.  
Lee Gibson, Johnson City.

### COMMITTEE ON INSURANCE

A. F. Cooper, Chairman, Memphis.  
C. M. Hamilton, Nashville.  
S. R. Miller, Knoxville.

### COMMITTEE ON MEDICAL DEFENSE

S. R. Miller, Chairman, Knoxville.  
H. B. Everett, Memphis.  
H. M. Tigert, Nashville.

### ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

W. P. Wood, Chairman, Knoxville.  
W. M. Searight, Memphis.  
L. W. Edwards, Nashville.

### COMMITTEE ON EDUCATION

O. S. Warr, Chairman, Memphis (1938).  
R. B. Wood, Knoxville (1938).  
W. G. Kennon, Nashville (1937).  
J. Marsh Frere, Chattanooga (1937).  
W. O. Baird, Henderson (1939).  
J. M. Lee, Nashville (1939).

The following committees are expected to serve under the supervision of the Committee on Education:

#### (A) COMMITTEE ON MATERNAL WELFARE

J. R. Reinberger, Chairman, Memphis.  
M. S. Lewis, Nashville.  
H. P. Hewitt, Chattanooga.  
Andrew Smith, Knoxville.

#### (B) COMMITTEE ON CHILD WELFARE

W. D. Anderson, Chairman, Chattanooga.  
Oliver Hill, Knoxville.  
H. G. Bradley, Nashville.  
W. L. Rucks, Memphis.

#### (C) CANCER COMMITTEE

Ralph Monger, Chairman, Knoxville.  
S. J. Sullivan, Cleveland.  
Howard King, Nashville.  
H. S. Shoulders, Nashville.  
J. W. McClaran, Jackson.  
Frank Smythe, Memphis.

#### (D) COMMITTEE ON PHYSICAL THERAPY

A. H. Meyer, Chairman, Memphis.  
W. E. Van Order, Chattanooga.  
J. F. Hamilton, Memphis.  
R. W. Billington, Nashville.  
J. P. Gilbert, Nashville.

#### (E) COMMITTEE ON POSTGRADUATE INSTRUCTION IN OBSTETRICS

Jas. R. Reinberger, Chairman, Memphis.  
Franklin B. Bogart, Chattanooga.  
O. W. Hyman, Memphis.  
John M. Lee, Nashville.  
J. O. Manier, Nashville.  
Otis S. Warr, Memphis.  
John B. Youmans, Nashville.



residing in the neighboring towns of Jacksboro and Caryville and those in Jellico affiliated with this local society, it became the Campbell County Medical Society and was granted a state charter as a unit in the Tennessee State Medical Association.

Last year Dr. Rose was granted an honorary life membership in the Campbell County Society. For this honor he expressed his deep appreciation and gratitude.

His paper closed with a few well-placed remarks in the nature of advice to members of the profession in this society. It was a very enjoyable paper, and it brought this elderly doctor even closer into our hearts.

There was no meeting of this society in March.

R. J. BUCKMAN,  
*Secretary.*

#### *Greene County:*

The physicians and dentists of Greene County met April 6 at the Andrew Johnson Club for their customary annual joint meeting.

Dr. Claude R. Wood, president of the Tennessee State Dental Association, presented a paper on "Orthodontia and Its Relation to General Health."

Dr. L. E. Dyer presented a paper on "Some Common Oral Pathology."

Mr. L. W. Kibler, representing the Tennessee State Medical Association, attended as a guest of the society, organizing a post-graduate course in obstetrics for the local physicians.

The following physicians and dentists were present: Drs. C. P. Fox, C. P. Fox, Jr., H. W. Fox, M. A. Blanton, J. T. Campbell, L. E. Dyer, I. E. Coolidge, Hal Henard, R. S. Cowles, H. B. Anderson, C. B. Laughlin, R. B. Gibson, W. T. Matches, I. E. Phillips, J. C. McGuffin, Frank Yost, I. E. Broyles, F. G. Mathes, and E. I. White.

#### *Hamilton County:*

The Hamilton County Medical Society did not meet on April 15 because of the Tennessee State Medical Society meeting in Knoxville.

The following papers are scheduled to be read:

April 22—"Diagnosis of the Acute Abdomen," by Dr. F. E. Marsh. "Intestinal Obstruction," by Dr. D. B. Karr.

April 29—"Radiation Therapy in Pelvis Lesions," by Dr. F. B. Bogart. "Endocrinology in Childhood," by Dr. W. D. Anderson.

May 6—Dinner and Symposium on Tuberculosis at Pine Breeze Sanatorium, by Staff of Pine Breeze Sanatorium.

May 13—"Care of the Premature," by Dr. Harold J. Starr. "The Influence of Feeding on Behaviorism of Childhood," by Dr. W. E. Van Order. "Allergic Manifestation in Children," by Dr. O. L. Von Canon.

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#### *Hardin, Lawrence, Lewis, Perry, and Wayne Counties:*

The Five-County Medical Society met in Linden on March 30. The following papers were read:

"Indications for and Demonstration of Practical Oxygen Therapy," by Dr. Watt Yeiser, Columbia.

"Disorders of Menstruation," by Dr. John C. Burch, Nashville.

"Complications of Measles, Diphtheria, Whooping Cough, and Scarlet Fever and Their Preventions," by Dr. J. W. Irwin, Savannah. Discussion opened by Dr. W. E. Turner, Lobelville.

"Treatment of Eclampsia," by Dr. Frank E. Whitacre, clinical instructor in the post-graduate instruction in obstetrics. Discussion opened by Drs. T. J. Stockard, Lawrenceburg, and W. E. Boyce, Flatwoods.

"Treatment of the Commoner Skin Diseases," by Dr. C. M. Hamilton, Nashville.

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#### *Knox County:*

March 16—"Sinusitis," by Dr. H. K. Cunningham. Discussion opened by Drs. Potter, Grubb, LeTellier, and Reese Patterson.

March 23—"Cancer, Its Present Status and Suggested Control," by Dr. Herbert Acuff. Discussion opened by Drs. McCampbell, Haun, Monger, Hugh Reeves, and Abercrombie.

April 6—"Diabetes Mellitus," by Dr. Walter Luttrell. Discussion opened by Drs. Thomas, Pope, and Carmichael.

#### *Washington County:*

The Washington County Medical Society held its thirty-fourth anniversary meeting on April 2.

Dr. L. M. Blackford of Emory University, Atlanta, Georgia, read a paper on "Syphilis of the Heart."

#### *Williamson County:*

At the regular meeting of the Williamson County Medical Society on March 23 two new members were admitted—Dr. Don C. Peterson, the newly-appointed director of the Williamson County Health Unit, and Dr. Walter Pyle, who has just entered private practice of medicine in Franklin.

Dr. K. S. Howlett read a paper on "Analgesics in Obstetrics" which was very fully discussed by the members present.

Dr. B. T. Nolen was elected delegate and Dr. J. W. Greer, alternate, to the coming meeting of the state association at Knoxville. There was a full attendance.

K. S. HOWLETT, M.D.,  
*Secretary.*

## OTHER MEDICAL SOCIETIES

### VANDERBILT UNIVERSITY MEDICAL SOCIETY MARCH 5, 1937

1. Report of a case: "A Case of Family Periodic Paralysis," Drs. Homer Swanson, W. F. Fleming, and T. R. Harrison.

Interesting points in history and physical examination of a case of family period paralysis in eighteen-year-old farmer boy were: (1) family history of disease in nine members in last five generations; (2) similar episode in this patient two and one-half years ago without complications or sequelae; (3) complete, flaccid paralysis of all somatic muscles with complete loss of all deep and superficial reflexes, but without pathological reflexes; (4) no impairment of

cranial nerves and no impairment of sensations; (5) loss of muscle response to painful and forceful stimulation; and (6) slight cardiac enlargement with systolic murmurs at apex and base with inverted T1 and T3 on E.K.G. Laboratory findings with exception of E.K.G. changes and low creatinine excretion in urine were within normal limits. The paralysis terminated spontaneously and abruptly seven hours after admission without complications or sequelae.

The case was presented by Dr. Swanson and discussed by Drs. W. F. Fleming, Hugh J. Morgan, Henry E. Meleney, and John Youmans.

2. "Chronic Constrictive Pericarditis: Report of Nineteen Cases," Drs. Alfred Blalock and C. S. Burwell.

Chronic constrictive pericarditis was considered from the viewpoint of etiology, signs and symptoms, operation and prognosis. Nineteen patients with the disease were described. The disease was probably tuberculous in origin in sixteen of the nineteen. Pericardiectomy was performed on twelve patients and seven of these are either cured or greatly improved. The three patients with nontuberculous pericarditis have improved markedly following operation. The mortality rate will probably continue to be high with or without operation in patients with constriction of the heart due to an active tuberculous infection.

The paper was presented by Dr. Alfred Blalock and discussed by Drs. E. W. Goodpasture, Tinsley Harrison, David Strayhorn, and Edgar Jones.

3. "Salicylate Poisoning: An Explanation of the More Serious Manifestations," Drs. Katherine Dodd, Ann S. Minot, and J. H. Arena.

The histories of three children with salicylate poisoning were presented. By animal experimentation it was shown that one of the main actions of salicylate is to increase metabolism. Large doses of salicylate can be taken by normal animals without harmful effect, but when heat elimination is interfered with artificially, great increases in temperature, respiratory rate, and metabolism result so that the animal dies from exhaustion following even small

amounts of salicylate. Similarly vomiting, mental confusion, and subsequent dehydration may interfere with heat elimination in man and produce similar symptoms. Treatment should consist in the administration of large amounts of fluids and cooling measures.

The paper was presented by Dr. Katherine Dodd and discussed by Drs. Ann Minot, Cobb Pilcher, and Horton R. Casparis.

## ABSTRACTS OF CURRENT LITERATURE

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

Anesthesia in Urology. Barrett, Current Researches in Anesthesia and Analgesia, September-October, 1936.

The practice of urology necessitates an intense interest in anesthesia as genitourinary surgeons are confronted with patients who are already suffering from damaged livers, kidneys, and cardiovascular systems. The rational use and selection of anesthetics will enable them to reduce their mortality. In kidney surgery gas-oxygen is preferred as it maintains blood pressure. The avoidance of lowered blood pressure insures adequate circulation in kidneys which in turn insures sufficient urinary output.

In surgery of the ureter, prostate, and bladder preference is given to spinal, regional, and to gas-oxygen in the order named. Evipal or some other barbiturate with or without morphine is used as premedication.

#### The Perfect Anesthetic

An instantaneous nonirritating anesthetic,  
Pleasant to him or her, and safe for the diabetic,  
Was hard to find, and difficult of apprehension,  
And almost as elusive as the fourth dimension.  
Induction is as suave and smooth as any detail man.

Unconsciousness is produced in less than a second's span.

The salivary and mucous glands are loath to overact,

Preventing inundation of the respiratory tract.

Missing is that mischievous, grievous, disturbing mishap

Caused by a falling tongue ensnared in a pharyngeal trap.

Yet another alarming state known as cyanosis

Is dodged by those with excessive cervical adiposis.

No laryngeal spasm ensues upon skin incision,  
No rigidity upon peritoneal division.

Without such conjunctions as those ifs and ands  
and buts

Gone are surgeons' heroic duels with the guts.

For cowed intestines seek recesses subdiaphragmatic

And sequestered there, linger in a condition static.

The once defiant appendix in retrocecal position

Surrenders eagerly and resists not extradition.

This exceeding peaceful, placid, flaccid relaxation

Allows accurate abdominal wall coaptation,

For this faultless, flawless, priceless, specious narcosis

Conquers the most stubborn muscle and aponeurosis.

The lungs ensconced in their pleural-lined costal mansion

Escape pneumonia by adequate vesicular expansion.

The heart without a murmur or T wave inversion

Beats rhythmically with normal ventricular excursion.

The blood itself unpolluted is pure and clean

As ever filtered through a liver or laked in a spleen.

Blushing erythrocytes maintain their healthy ruddy hue

And the venous stream retains its aristocratic blue.

Leucocytic activity is never in question,

No case is known of Phagocytic indigestion.

N. P. N., creatinin, and alkaline reserve

Register percentages in a horizontal curve.

Glycemia hypo and hyper that antisocial twain

Are sought by persevering human bloodhounds all in vain.

Tubular casts formed by granules and matter hyaline

In that amber briny fluid are never, never seen.

Recovery is featureless without mental confusion,

No organic trauma or psychic contusion.

No nausea, hiccups, or vehement retching,

No hasty hurried emesis basin fetching.

This newest, newer anesthetic without an error

Robs anesthesia of its danger and its terror.

Acclaimed today complete, supreme, and without a peer

Disproved, disowned, and repudiated within a year.

### DERMATOLOGY

By E. E. BROWN, M.D.  
Doctors Building, Nashville

Shoes: A Source of Reinfection in Ringworm of the Feet. Robert C. Jamieson, M.D., and Adelia McCrae, Ph.D., Detroit, Michigan, Archives of Dermatology and Syphilology, February, 1937.

This is only a preliminary report and consists of a study of fifty-three cases. Specimens were taken from the inner soles of the shoes. Results were tabulated and various fungi separated. Fifty-



# EXPLOITATION of the MEDICAL PROFESSION

EVERYWHERE it is rampant — newspapers, magazines, billboards, radio. "Your doctor will tell you that . . . ." "Medical science has found that . . . ." "The greatest specialists in Timbuctoo say that . . . ." And the rest of the story is, of course, "Use our pills or our vitamins three times a day; ask your doctor."

♦ ♦ ♦

You are forced to compete with those who offer your patients free advice regarding medical treatment. You deliver Mrs. Blank's baby today, and tomorrow she will receive by mail samples of baby foods with complete directions how to use them. Indeed, some physician representing a commercial organization and knowing that the case is in your hands may address a personal letter to your patient offering his services free.

♦ ♦ ♦

It has been said that ten more years of the present trend of interference in medical practice will do away with the need for private practice of infant feeding and other branches of medicine.

♦ ♦ ♦

Mead Johnson & Company have always believed that the feeding and care of babies and growing children is an individual problem that can best be controlled by the individual physician. For over twenty years and in dozens of ethical ways we have given practical effect to this creed. We hold the interest of the medical profession higher than our own, for we too, no doubt, could sell more of our products were we to advertise them directly to the public.

♦ ♦ ♦

So long as medical men tacitly encourage the present trend, so long will serious inroads continue to be made into private medical practice. When more physicians specify MEAD'S Products\* when indicated, more babies will be fed by physicians because Mead Johnson & Company earnestly cooperate with the medical profession along strictly ethical lines and never exploit the medical profession.



"We Are Keeping the Faith"



*Dextri-Maltose Nos. 1, 2, and 3; Dextri-Maltose with Vitamin B; Mead's Viosterol in Oil; Mead's Cod Liver Oil with Viosterol; Mead's Standardized Cod Liver Oil; Pabulum; Mead's Cereal; Mead's Brewers Yeast (powder and tablets); Mead's Powdered Lactic Acid Milk Nos. 1 and 2; Mead's Powdered Whole*

*Milk; Alacta; Mead's Powdered Protein Milk; Casec; Reolac; Sobee; Comac; Mead's Halibut Liver Oil; Mead's Viosterol in Halibut Liver Oil (liquid and capsules); Mead's Oleum Percomorphum (liquid and capsules); Mead's Cod Liver Oil Fortified with Percomorph Liver Oil.*

two cases were positive clinically. One negative was used for control. Cultures of scrapings showed sixteen definite positives, thirteen definite negatives, twenty-three were doubtful, and the control was negative. They believe that infected shoes were a potential source of infection or reinfection. Sulzbacker, Mitchell, Williams, Weidman, and several others give an able discussion.

**The Local Application of Thallium in Fungus Infections of the Scalp.** S. Lieberman, *Dermat. Wchnschr.*, June 15, 1935.

He reports successful results obtained by application of a solution of thallium to patches of tinea capitis to produce a temporary epilation. No unpleasant complications were encountered.

### OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.  
Suite 316 Doctors Building, Nashville

**Cystographic Diagnosis of Placenta Previa.** James F. McDowell, *American Journal of Obstetrics and Gynecology*, 33: 436-443, March, 1937.

The advent of the X-ray has brought forth innumerable attempts to use this method as an aid in diagnosis of placenta previa. The historical discussion dates to 1930 with Menees, Miller, and Hollis injecting opaque material into the uterine cavity through the abdominal and uterine walls.

The scope of this paper is to present nine cases of abnormal uterine bleeding in the last trimester of pregnancy in which the diagnosis of placenta previa was made in seven as a result of cystographic examination.

The technic of the cystogram, the criterion of diagnosis, along with nine case reports are given.

The findings at the time of delivery confirmed the diagnosis. This method of diagnosis is not suggested as an infallible one, but rather is to be used in conjunction with the history and physical findings.

**A Clinical Review of 110 Cases of Ovarian Carcinoma.** F. W. Lynch, *American Journal of Obstetrics and Gynecology*, 32: 753, November, 1936.

Diagnosis of tumors is not always an easy one as shown by the records from the Department of Obstetrics and Gynecology, University of California. Less than ninety per cent of 300 fibroids and in sixty-four per cent of 302 true ovarian neoplasms were the diagnoses absolutely correct.

Two-thirds of the 110 patients presented were between forty and sixty years of age. Twelve per cent had never been married and thirty-one per cent had never been pregnant.

A five-year cure was shown in sixty-four patients which is very gratifying on first sight; however, careful study dispels this thought. The cure rate depends entirely upon the number of slow-growing

tumors in the series. Surgery was attempted on all cases, although eight were found to be hopeless. Lynch outlines the different types of roentgen-ray therapy carried out on this series. He believes the curative effect of roentgen-ray therapy on ovarian tumors has been greatly overestimated.

In the discussion of this report Litzenberg reported that of 108 patients treated for ovarian carcinoma nearly thirty-three per cent were well five years later. His treatment consists of removal of the cyst followed by deep therapy.

Healy is now teaching that when a malignant tumor of the ovary is suspected in a woman more than forty years of age, irradiation treatment should be given and operation delayed for several months.

### OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
Doctors Building, Nashville

**Tabetic Optic Atrophy and Its Treatment.** J. Sobanski, *Archives of Ophthalmology*, March, 1937.

In the ophthalmologic clinic of the University of Warsaw tabetic patients with and without atrophy have been thoroughly studied with regard to the retinal circulation. In the majority of the patients with optic atrophy "there prevails a low diastolic, general as well as local, arterial and a relatively high intraocular pressure." In the tabetic patients without optic atrophy the arterial pressure is relatively high. "These data prove unambiguously that the occurrence of optic atrophy during the course of tabes is closely connected with the state of the circulatory system or rather with the height of the diastolic pressure. The conditions prevailing in pseudoglaucoma are analogous." Sobanski concludes that tabetic optic atrophy is the result of a disturbance of the retinal circulation and has treated patients with the condition accordingly. In the majority of them cyclodialysis was performed to lower the intraocular pressure. The others received miotics and general or vascular tonics. In addition, antisyphilitic treatment with bismuth and arsphenamine was given to every patient on the assumption that the vascular hypotension was the result of a specific syphilitic cardiovascular disease. It seems as though this combination of local and general measures gives, on the whole, better immediate results as judged by the function of the optic nerves than any other method now in use. Antisyphilitic treatment of tabetic optic atrophy without careful consideration of the retinal circulation is, according to the author, a grave mistake.

**The Medical Treatment of Meniere's Syndrome.** Madeleine R. Brown, M.D., *Journal American Medical Association*, April, 1937.

In 1861 Prosper Meniere delivered a paper before the Imperial Academy of Medicine of France

entitled "Memoire Concerning Lesions of the Internal Ear, Giving Rise to the Symptoms of Cerebral Apoplectiform Congestion." He advanced the theory that the syndrome of deafness and tinnitus, accompanied by an attack of vertigo, vomiting, and nystagmus, was due to hemorrhage of the labyrinth. This theory was accepted for many years, but today we realize that the pathologic anatomy is unknown. Many forms of treatment have been tried: lumbar puncture, quinine, mastoidectomy, and section of the eighth nerve. A study of the literature on this condition by Furstenberg results in what is known as Furstenberg's treatment and diet, which consists of: first, low salt content in the diet; second, medication, ammonium chloride, three grams with each meal and three days on and two days off; third, water intake unrestricted. All food to be prepared and served without salt. All preparations containing sodium should be avoided. The author stresses the fact that Meniere's is a definite syndrome. The symptoms of deafness and tinnitus, at least before an attack, are the two that are most commonly overlooked. These are just as much a part of the syndrome as vertigo and vomiting, and must be present before the diagnosis can be established.

The author reports twelve cases who had severe attacks of vertigo and vomiting accompanied by deafness and tinnitus relieved by the medical treatment and diet described.

### **PEDIATRICS**

By JOHN M. LEE, M.D.  
Doctors Building, Nashville

Stages, Prognosis, and Duration of Glomerular Nephritis in Childhood. Albert W. Snoke, M.D., San Francisco, *American Journal of Disabled Children*, March, 1937.

By many it has long been thought that acute nephritis in childhood usually results in complete recovery, though Holt in 1897 contended that it might continue into a chronic process and eventual death. Frequently after an acute nephritis it has been noted that ordinary urinalysis showed traces of albumin, occasional red and white blood cells and even casts, but in view of the patient's apparent good health and absence of symptoms, no significance was attached to the urinary findings, especially since the usual kidney function tests (phenolsulphonphthalein, nonprotein nitrogen, etc.) indicated that the kidneys were normal. (These tests continue to give negative results until at least half the kidney is destroyed.)

In 1925 Addis demonstrated that in adults acute and chronic (terminal) nephritis are respectively the beginning and the last stages of one continuing process. By applying a quantitative test of concentrated urine, he established the fact that while some cases of acute nephritis recovered com-

pletely, in many others there is a latent stage during which casts, red blood cells, epithelial cells, and protein are excreted in abnormal amounts for periods varying from a month to twenty or more years after the acute stage, indicating a continuing activity of the disease. He was able to trace a continuously active process through the stages of acute nephritis, latent nephritis, degenerative glomerular nephritis ("nephrosis, etc.") and terminal (chronic) nephritis to the final episode of uremia.

The author applied the quantitative test of concentrated urine in a study of 178 children with glomerular nephritis in the Stanford Children's Clinic and observed the same condition that Addis found in adults with nephritis. In fourteen children nephritis was found in the latent stage with no history of acute nephritis or previous history of infection, which suggests that unrecognized latent nephritis is not uncommon.

It is concluded that "glomerular nephritis, commonly if not invariably, enters a latent stage after the initial stage. The initial stage may be and often is overlooked when gross hematuria or fulminating symptoms are absent. Latent glomerular nephritis may terminate in healing or may pass on to the degenerative stage or to the terminal stage, and its duration is enormously variable. The later stages frequently do not occur till some period of adult life. . . . Glomerular nephritis cannot be proved to be healed until repeated quantitative examinations of concentrated urine over a period of at least one year have been normal."

Between 1920 and 1936, 178 cases were studied and 154 of these were followed. Of the 154 children, fifty-seven are healed, thirty-three are dead, and sixty-four still have nephritis. Of the sixty-four cases with continuing activity, thirty-five have been in that stage for over two years and six for more than ten years. With two doubtful exceptions no case with nephritis lasting over two years had healed. It is believed that an eventual fatality rate of forty per cent for glomerular nephritis is conservative.

The report is concluded with histories of twelve illustrative cases.

### **ROENTGENOLOGY**

By FRANKLIN B. BOGART, M.D.  
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Evaluation of Irradiation in the Treatment of Uterine Fibroids. Burnam, Curtis E., *American Journal of Roentgenology and Radium Therapy*, Vol. 37, No. 2, February, 1937.

It is recognized that many fibroids can be equally successfully treated by surgery or radiation in the forms of radium or X-rays. It is likewise recognized that in young women where it is possible to remove the fibroid without removing the



uterus the childbearing function may be preserved. The possibility of preventing menopause by removing the uterus and not disturbing the ovaries is questionable since fifty per cent of such cases go through the menopause within four years. In the very large tumor where an accurate diagnosis cannot be made except by laparotomy, radiation obviously cannot be used.

If one excluded all patients under forty years where pregnancy is hoped for, all cases where diagnosis is not certain and all cases in which there are complications contraindicating radiation there is a choice between radiation and surgery that is dependent largely upon the physician consulted.

Due to the widespread belief among patients and among some physicians that an artificially-produced menopause may produce undesirable physical or mental changes, 100 cases were selected for study in whom artificial menopause was produced years ago in the treatment of fibroids. They were divided about equally among those treated by radium, by roentgen rays, and by a combination of the two. The cases were treated because the fibroids were causing bleeding or were producing symptoms from pressure.

*Tumor.*—In fifty-nine of the cases the tumor entirely disappeared. In thirty-two it was greatly reduced in size and in eight there was no reduction in size. In the eight cases in which there was no reduction in size subsequent operation was not necessary as the symptoms were relieved by the irradiation. In these eight cases no subsequent increase in the size of the fibroid took place.

*Bleeding.*—Bleeding was controlled in all cases. The average time required for amenorrhea to be established was five and a half weeks, although some cases did not experience a complete amenorrhea for four months.

*Arthritis.*—One patient in the group who had a definite arthritis previous to the treatment showed no change following the treatment. There were nine cases who did have slight arthritis symptoms following treatment. These symptoms persisted for almost six months and disappeared without any special treatment.

*Glandular Changes and Blood Pressure.*—No case showed evidence of hypo or hyperpituitarism or of changes in the thyroid gland. In seventeen cases with hypertension there was no material change following treatment, although all cases did show slight reduction in the blood pressure.

*Hot Flushes.*—Four per cent of cases had no hot flushes. Fifty-eight per cent had very mild flushes. Thirty-four had pronounced flushes and four had quite severe flushes. The average dura-

tion of these flushes was eleven and one-half months, the shortest duration one month, and the longest three years.

*Nervous and Psychic Disturbances.*—In three cases who complained of nervousness before treatment it was not relieved. Twelve cases complained of nervousness for two or three months and three complained of it for more than a year. In seven cases who had experienced depressive states before treatment there was no material change. There was no change of sexual functions.

*Conclusion.*—The production of artificial menopause does not result in serious or persistent physical or mental change.

A great many patients volunteer the information that they feel better after treatment which is often true after a natural menopause.

Radiation as a means of treatment is perfectly safe as to mortality and morbidity.

Radiation is most effective in controlling the symptoms produced by fibroids and in women over forty years the preservation of ovarian functions should not be a factor in determining the type of treatment.

In cases showing hot flushes or nervousness, mild treatment over the pituitary with or without small doses of iodine is most effective in controlling these symptoms.

## SURGERY—GENERAL AND ABDOMINAL

By BATTLE MALONE, II, M.D.  
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Comparative Results with Dietetic, Parenteral and Surgical Treatment in Peptic Ulcer. David J. Sandweiss, M.D., *Journal of American Medical Association*, Vol. 108, No. 9, February 27, 1937.

The material for this paper is taken from comparative results in the different types of treatment in sixty-nine private and 222 clinic cases of peptic ulcer. All patients were divided into two groups: (a) acute, those having had symptoms less than five years, and (b) chronic, those with ulcer symptoms more than five years.

With ambulatory diet-alkali therapy, varying immediate results were obtained. The best results were observed in the private group with acute ulcer (ninety-four per cent). The poorest results were in the clinic group with chronic ulcers, showing sixty-nine per cent relapses within one year. Diets used were of the usual sippy type with administration of the alkaline powders.

The group of patients given parenteral therapy were largely from the clinic group having chronic

ulcers. Materials used were vaccine, histidine and emetine, all of which gave practically identical immediate results. Sixty-two per cent of the chronic ulcer patients who failed to respond to the diet-alkali management became symptom free on a subsequent diet-alkali regimen. The percentage of relapses at the end of one year was higher in the parenterally treated cases than in those having diet-alkali management. Refractory cases treated by hospital bed rest and diet-alkali management showed a lower percentage of relapses at the end of five years than did the parenterally treated group at the end of one year.

Surgical treatment gives the highest percentage of immediate symptom-free intervals (eighty-nine per cent) and the smallest percentage of relapses within one year, but it shows recrudescence in seventy-six per cent of patients within five years. The total of known relapses is highest in the surgical series. The author gives the following conditions as the only indications for surgery: (1) perforation, (2) suspicion of malignancy, (3) obstruction not relieved by medical management, and (4) repeated and frequent hemorrhages.

The benefit which some ulcer patients seem to derive from parenteral therapy cannot be explained fully. The author believes that the psychic factor is the most important, also the life history of ulcer is characterized by symptom-free intervals and relapses. The relief obtained from parenteral therapy may be in many cases one of these symptom-free intervals. Other factors which may account for results in parenteral therapy are: (1) nonspecific protein reaction, (2) nonspecific desensitization, and (3) nonspecific action on the sympathetic nervous system.

The author failed to corroborate the experimental work of Weiss and Aron in preventing ulcer formation in dogs after the Mann-Williamson operation in spite of the administration of one cubic centimeter of histidine twice daily.

Conclusions drawn from this paper are as follows: No one treatment is entirely satisfactory. Best results are to be had from prolonged diet-alkali management. Parenteral treatment will relieve sixty per cent of the diet-alkali failures. Surgery is to be used only when there is unrelieved obstruction, repeated hemorrhage, perforation or suspicion of malignancy.

### SYPHILOLOGY

By E. G. CLARK, M.D.

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Nashville

Congenital Syphilis: The Results of Treatment in Children. Smith, *Journal of American Medical Association*, 105: 409, 1935.

The author's material consists of the records of 991 patients with congenital syphilis treated at

the dispensary of the Johns Hopkins Hospital for the last twenty years. Of this number 621 were cases of early congenital syphilis (children up to two years of age) and 370 of the late form (older children). Neither babies less than two weeks old nor children above fifteen years are included. Approximately seventy per cent of the patients were Negroes and thirty per cent white. There were slightly more females than males.

*Effect of Antepartum Treatment.*—No treated mother who had more than fifteen injections of arsphenamine during pregnancy bore syphilitic children. The percentage of congenital syphilis was eighty for the children of untreated mothers and sixty-four for those of mothers who had received some, though inadequate, antepartum treatment. No relapse occurred in any of those children whose mothers were treated during pregnancy and only 4.7 per cent remained Wassermann-fast at the end of the observation period.

*Method of Treatment.*—Since 1928 the continuous method has been used, with courses of neoarsphenamine alternating with courses of bismuth. To small babies and children with poor veins sulpharsphenamine was given. The bismuth used was the salicylate. Each course consisted of six or eight injections, with no planned intervals, and treatment was continued for a minimum of a year or for at least fifty injections (twenty-five of each drug). Further treatment was dependent on the presence of active lesions and on the Wassermann response. In Wassermann-fast cases probation was not allowed until the spinal fluid had been found normal, and in such cases treatment was continued for two years (100 injections).

*Serologic Reactions on Admission.*—The blood Wassermann reaction was positive in all but five patients. The spinal fluid was examined in sixty-one cases of the early group and in seventy-one of the late group. It was found to be positive in twenty-one of the former (thirty-three per cent) and thirty-six (fifty per cent) of the latter. Only one of the babies with early congenital syphilis still had a positive fluid when re-examined during the observation period, and two that originally were negative had become positive. Twenty-two babies of the early group died before they were two years old. In the late group six with abnormal fluid died of general paralysis. None of those in this group with originally negative fluids showed positive fluids at a later examination.

*Results of Treatment.*—In the age group of one to six months lesions which are equivalent to those of early acquired syphilis heal rapidly with not more than two courses of treatment. Periostitis, which occurs at the age of six to eight years, re-

sponds well to treatment. Interstitial keratitis, which may occur at this age and particularly at puberty, proved in most cases resistant to treatment and required from twelve to fifty injections for its relief. Neurosyphilis, which is a late phenomenon, failed to respond satisfactorily to treatment in ninety per cent of the cases.

Twenty-six of 279 early cases, or 9.4 per cent, relapsed. The incidence of relapse was less with the increase of the amount of treatment. Several patients who had irregular, though in the sum total adequate, treatment (more than fifty injections) had a relapse several years later. The type of the relapse was mostly interstitial keratitis.

The incidence of relapse in the late group was higher: 13.2 per cent, or thirty-two out of 242 patients. Of the thirty-two patients who relapsed during the earlier part of treatment fourteen obtained a completely satisfactory clinical outcome after treatment had been continued. In general the outcome of treatment in the late group was better as more treatment was given.

In the early group no patient with adequate treatment had a relapse when the serologic reactions were negative. In the late group, however, seven patients had a relapse or progression. The author concludes that "it seems safe to place on indefinite probation any patient whose treatment was started before the age of two years and was adequate, who has no active lesion, and whose blood Wassermann and spinal fluid reactions are negative."

Serologic reversal was obtained in seventy-seven per cent of the patients whose treatment was started before the age of six months and decreased steadily with increasing age to only sixteen per cent when the start of treatment was delayed until from eleven to fifteen years.

**Deaths.**—There were 169 deaths among the 621 patients with early congenital syphilis. Syphilis was the direct cause in sixty, or 35.5 per cent. More than ninety per cent of these were children less than six months of age. Only one child with early congenital syphilis followed for more than two years died primarily of syphilis, and all but fourteen of the 169 deaths were of children under two years of age. Many children arrived at the clinic in almost moribund condition, so that effective treatment could not be administered. Only 5.5 per cent of those who died had received more than six injections.

There were twenty-three deaths among the late congenital cases. Of these, eleven were attributable to syphilis, all of the central nervous system. Only three had had adequate treatment.

## UROLOGY

By TOM R. BARRY, M.D., F.A.C.S.

By G. A. WILLIAMSON, Jr., M.D.

Medical Building, Knoxville

**Transurethral Resection: Its Indications, Limitations, and Complications.** H. C. Bumpus, Jr., S. G. & O., February 15, 1937.

A number of instruments in years past were devised to remove tissue from the prostate through the urethra. Because of bleeding and poor vision, insufficient tissue to insure adequate drainage was removed, and the cauterization produced secondary edema, inflammation, and obstruction, with its serious sequelae, as it still does today, under similar circumstances.

Dr. Caulk adapted a cautery blade to the tubular knife of the Young punch, greatly diminishing the bleeding, but vision still remained bad. The author found that bleeding, which interferes very little with vision in a direct cystoscope, could be controlled by electrocoagulation of individual vessels after each excision. Applying the high frequency current simply to the control of bleeding, tissue destruction is kept at a minimum, and subsequent healing is more rapid. He states that the average hospital stay of his private cases has been five and one-half days and fifty-eight per cent of the cases at the Mayo Clinic, where this technique was developed, left within seven days.

When the improved Stearns resectoscope was placed on the market, some 2,500 of these instruments were sold, indicating how general was the belief that there was no limitation of the applicability of the procedure. The results, as was to be expected, were disastrous, and this new method of restoring urinary drainage fell into disrepute. Although the prostatic urethra is small in area, its blood supply is rich, and when the larger vessels are opened, the bleeding will rapidly obscure the field of vision. Indiscriminate coagulation of the resected areas may result disastrously.

This should be attributed to the inexperience of the operator. He states that Davis operated 966 patients with but seven deaths, while 679 cases were resected at the Mayo Clinic last year with seven deaths. He has cited these two resectionists, for although they use two different types of instruments, their results are the same. The greatest limitation is not the operation, but the training of the operator.

Figures compiled by Orr this year show that the mortality associated with resection bears a direct relationship to the experience of the operator. From five urologists, each of whom had more than



500 cases, the mortality rate was 1.9 per cent for 4,767 cases. For twenty-five others, each of whom had done between one and 200, reported a mortality of 4.1 per cent for 3,530 cases.

*Indications.*—If normal bladder function can be restored by transurethral resection, then the indications for the employment of this technique naturally depend on the risk which is involved in its performance.

Large hypertrophies can be satisfactorily resected, but in some instances require more than one session, thus making the hospital stay approximately that of the older methods. The lessened risk of the new procedure then becomes its only advantage in large prostates.

Resection is especially valuable where the cardiovascular renal damage will not permit major surgical measures for relief. The preoperative

preparation has been greatly reduced. In the Mayo Clinic series to which he refers 65.7 per cent of 695 patients had no preoperative preparation, and in the author's private cases only twenty per cent received preoperative preparation.

*Complications.* — Aftercare of transurethral resection has not been so well standardized, the fundamental principle of free and uninterrupted drainage is not generally appreciated. If the catheter is allowed to block with blood, we may expect a reflux of infected urine to the renal pelvis.

If sufficient tissue cannot be removed in an hour it is much better to give up and repeat the procedure after a four or five-day interval. Prolonged instrumentation is likely to establish an urethral stricture. The passage of too large caliber catheter after operation or too large instruments may produce the same result.

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### MEDICAL SERVICES AND THE PUBLIC\*

CHAS. GORDON HEYD, B.A., M.D., F.A.C.S., New York City  
President American Medical Association

THE ECONOMIC disabilities of medical practice are only a part of a widespread social change. The lawyers are having a concerted attack made against them. These epochs of social unrest occur periodically throughout history. It would be surprising indeed if the practice of medicine were not assailed, as it is the first and most distinctive of the social services. Two fundamental questions are always omitted when the proponents of socialized medicine take the floor. In fact, there is such a flight from reality that the two most important desiderata of any socialized system of medical practice are apparently forgotten. The first involves the simple question, Who is going to pay for a socialized medical system, and how much would it cost? Mr. Bower Aly, a proponent of socialized or state medicine, in a radio debate on State Medicine, November 12, 1935, stated, "A program of complete medical care available to every person would actually cost only ten cents per day per person." In 1929, the population of the United States was 122,000,000 by 10 cents by 365 days equals \$4,453,000,000. In 1929, the compensation of employees received as wages was \$34,485,000,000. Again, the Committee on the Cost of Medical Care estimated that "an effective medical service could be provided at a per capita charge of \$20 a year, an extraordinarily complete and effective medical serv-

ice at \$40 per capita per year." An average cost would be \$30 per capita per year—122,000,000 by \$30 equals \$3,660,000,000.

In an article entitled "Organized Medicine," in the *New York State Medical Journal* of January 15, 1937, I stated that "it has been estimated that to provide a comparable medical service such as exists today, on a government insurance basis, would require at least ten per cent of the pay roll." For this statement I was taken to task by Dr. I. S. Falk, chief of Health Studies, Bureau of Research and Statistics, Social Security Board, Washington, D. C. The statement perhaps would have been without ambiguity if the expression "would require an amount of money at least equal to ten per cent of the pay roll" had been employed. Who would pay for socialized or compulsory health insurance was not considered at this time. Eventually the major portion of all taxes are paid by those gainfully employed.

The compensation of all employees in millions of dollars as stated by the "Brookings Institute" in their report, "America's Capacity to Consume," page 155, is as follows: wages, \$34,485,000,000; pensions and workmen's compensation, \$1,100,000,000; salaries, \$17,765,000,000; and compensation of corporation officers, \$3,337,000,000.

I am very happy to quote a portion of Mr. Falk's communication to me as of February 12, 1937:

"You quote a statement from Mr. Bower Aly as to the effect that ten cents a day

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.

per person is sufficient to pay for complete medical care. You estimate that for the 1929 population (122,000,000 persons) ten cents a day is equivalent to \$4,453,000,000. Then you relate this sum to the compensation of employees received in 1929 as wages, \$34,485,000,000. And you remark that the expected cost (on the basis of Mr. Aly's figures) is a billion dollars more than your estimate of ten per cent. But—and here is the catch—you calculate a percentage from an estimated cost of complete medical care for the entire population of the country and yet you relate it only to wages paid out to wage earners. If you will relate the cost of medical care for the entire population† (derived from Mr. Aly's figure) to their income (i. e., seventy-nine to ninety-three billion dollars, depending on which estimate is used for 1929), the cost will be between 5.6 and 4.8 per cent. Similarly, if you will use as the national cost the figure of \$3,660,000,000, which you derive from the data of the Committee on the Cost of Medical Care, and if you will relate it to the national income, you will get an answer which will fall between 4.6 and 3.9 per cent."

The Committee on the Cost of Medical Care found that army medicine at Fort Benning cost \$50.67 per person or over \$200 per year per family of four. The Michigan State Medical Society arrived at the figure of \$37.88 per person as the individual cost of health insurance, and set \$118 as the tentative fee for a family. In the Epstein Bill, as written by Dr. Herman Gray, it was proposed to assess a six per cent wage contribution up to an annual income of \$3,000. "Of this sum four and one-half per cent is to be set aside for medical benefits and one and one-half for cash benefits."

Take for example the estimated cost of a complete system of "free" medical service in the State of Michigan: "The taxpayer paid \$82,000,000 in 1935 to the State of Michigan (not to mention the \$118,000,000 he paid to the county, city, and township governments of this state). Saddle on the taxpayer a complete system of "free" medi-

cine for all the 4,707,465 people of this state, and you increase taxes by \$171,820,647 (based on the estimate of a proponent, Mr. Bower Aly, quoted above). The state taxes would have to be more than tripled. The sales tax, mainstay of the State of Michigan budget, would be nine per cent instead of three per cent."

Pick states that the administration of compulsory health insurance in Germany has resulted in an administrative bureaucracy in which the number of nonmedical individuals responsible for the administration of the system is practically the same as the number of physicians engaged in giving medical service.

*The position of the voluntary hospital is very disturbing. The administration's fiscal policy entails financial insolvency for many hospitals and other eleemosynary institutions. The gifts to hospitals have in recent years been almost negligible. In 1929-30, according to George Oliver Tamblyn, private institutions of higher learning received 130 million dollars from private benefactors. In 1935-36 only twenty-four million dollars were received, a decrease of 80.9 per cent. Furthermore, the funds of these institutions have earned less than two per cent and now there are hardly any available investments for trust funds that will even yield this amount of income. A continuance of this condition of affairs will in all probability make it imperative for hospitals to share in the tax funds. If the nongovernmental hospitals are to be saved from bankruptcy by receiving tax funds, then the dominant political party will in effect control the policies of the voluntary hospitals. It requires but a further extension of the same condition of affairs for the government to control the source of supply of doctors, namely, the medical schools. The implications of these possibilities are such as to cause grave apprehension on the part of physicians, individually and in their organized capacity as medical societies.*

A competent authority has stated that the scientific achievements of medicine far exceed the progress in other departments of science. The discovery of the bacterial origin of disease indicated how certain diseases could be prevented or cured by the

†There is also a "catch" in this argument, to-wit: Who will pay for the medical services to indigents now largely borne by voluntary hospitals and the physicians?



application of general hygienic methods. For example, the discovery of the bacillus of typhoid fever allowed the sanitary engineers to protect the source and to control the water supply and thereby prevent effectively the development of typhoid fever. So thoroughly is this fact established that one of the cities of New York State had a judgment for damages rendered against it as the result of the contamination of the water supply. Vaccination against smallpox exhibits the prevention of a disease by prophylactic measures without knowing the cause of the disease. It is evident, therefore, that certain morbid conditions lend themselves to mass control. *The medical practitioner in the future will be utilized largely in a more personal relationship to preventive medicine. Mass methods in medicine have approached a definite utilitarian end. We are slowly developing a society in which old members will represent a constantly increasing percentage. Again, the individual span of life is being lengthened to a surprising degree—from 47.24 to 59.31 years. At present the leading causes of death are heart disease, pneumovnia, cancer, kidney disease.* In these morbid conditions the problem of medical service is distinctly an individual one. The final result will be that the medical consultations will require more time for the complete physical examination, the necessary laboratory procedures that must be performed, and, in a larger sense, for the additional time spent in the advice and instructions of the physician to the patient. As a corollary to this trend in individual personal medical services there will be an increasing importance placed upon graduate medical education. *With the rapid advance in medical knowledge, with new discoveries and their application to clinical practice, facilities for post-graduate instructions must be enlarged greatly, coordinated, and amplified.*

Organized medicine may be defined as the grouping of physicians in the county and state medical societies and in the American Medical Association for the purpose of serving society.

The primary and social purpose of medical evolution was based upon two distinct aspects of organization: (1) to provide a

high quality of medical services to the community, and (2) to prevent fraudulent medicine—quacks, charlatans, and schemers—from exploiting the public.

*Any fair and honest analysis of the medical service as provided for the citizens of the United States will demonstrate that much of our splendid health record has been due to the disinterested, unselfish public education that has been carried on by the county and state medical societies and the American Medical Association.* A large portion of the funds of these various units of organized medicine has been expended in informing the public of desirable measures for personal and public health. Let me emphasize that a large part of the annual funds of the American Medical Association is expended for the protection and best interest of the public. Specifically, to name some of these activities, it is only necessary to mention the Council on Medical Education and Hospitals, the Council on Pharmacy and Chemistry, the Council on Physical Therapy, the Committee on Foods, the Bureau of Health and Public Instruction, and the Bureau of Investigation.

*In order to develop the best type of physician and to enable him to function with the greatest possible efficiency for the benefit of society, it is essential that the fundamental conception of medical service be preserved in its present form of availability.* Medical practice is not a static principle, but is a dynamic concept of service to the community for the good of the physical and mental condition of society. By constantly accepting the advances in science, organized medicine has improved the health of the people and reduced the amount of illness. *Organized medicine believes that it is by this dynamic quality of scientific progress that good medical practice has been given and will continue to improve and that fundamentally the question is quality of medical service and not primarily its cost.*

"The population of the United States has within the past twenty-five years reached heights in the protection of human life, as revealed by official rates of death and of sickness, never before achieved in historic times by any populations of such size and diversity of component racial and nativity

groups. Under the guidance of the medical profession, through the individual relationship of the physician and the persons or families who call upon him for advice, and by the authority they may have through officers of civil government in hospital and health services, and by the influence of these upon public opinion through professional organizations, there has been a progressive reduction in preventable disease and a higher level of diagnoses and treatment of the sick than ever before. This favorable situation seems to have been attained by the independence and initiative of voluntary effort."

The distribution of medical service has been effective. It must be admitted that in our country there are some geographical inadequacies of medical service, but I think it may be said safely that the deficiencies of distribution of medical services are not at all comparable with the illiteracy that exists in some of the backward areas nor with the inadequacy of nourishment and living conditions. In addition, it might quite well be challenged whether the distribution of medical services can be adequate for such areas until the basic defects of nutrition, exposure, and education have been overcome, until more roads are built, the sparsity of population overcome, and the needs of some remote groups of citizens aided by prolonged contacts with scientific medicine in order to develop a health consciousness. Remember that hospital facilities have been increased and diagnostic and treatment clinics far surpass in number and effectiveness the dreams of any sociologist of 1900. *I think organized medicine may claim that in general there has been an effective and only exceptionally an inadequate distribution of medical services.*

*The outstanding defect of voluntary or compulsory health insurance is that it divides the practice of medicine into a class practice and the measure of effectiveness of the medical service is dependent upon the economic status of the patient. There is thus created a superior type of medical service for the well-to-do and a substandard type of medical practice for those in the lower economic brackets. The practice of medicine in the lower economic group be-*

*comes largely a prescription practice—a brief visit to the doctor, an inadequate scant history, and a prescription or the dispensing of a bottle of medicine. One of the most tremendous steps in the practice of medicine in America is that it has become a diagnostic practice, a practice based upon a complete physical examination, scientific laboratory determinations, and the direct opposite of a prescription form of medical practice.*

Organized medicine has improved medical standards and medical education. Improvements in medical education and the measures for protecting the community from inferior practitioners have arisen from within organized medicine. The organized medical profession, as represented by the American Medical Association, has brought about a reduction in the number of medical schools since 1900 from 165 to sixty-seven, and succeeded in obtaining an almost uniform premedical curriculum, has surveyed and approved hospitals throughout the United States, has listed hospitals for the training of interns and resident interns, has promulgated a code of ethics for the protection of the public, has established certification boards for the examination and registration of those seeking to be specialists in all the major branches of medicine.

We believe (1) that all the professional features of medical service in any method of medical practice should be under control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.

(2) That no third party should, in any medical relation, be permitted to come between the patient and his physician. All the responsibility for the character of medical service must be borne by the profession.

(3) That patients must have absolute freedom to choose a doctor of medicine who will serve them from among all those qualified to practice and who are willing to give service.

(4) That, in whatever way the cost of medical service may be distributed, it should be paid for by the patient in accordance with his means and in a manner that is mutually satisfactory.



(5) That medical service must have no connection with any indemnity cash benefits.

The insurance principle as applied to human sickness is acceptable only in buying hospital lodging and accommodations, food, and general nursing care. The insurance principle applied to the employment of professional services will fail because there is inherent in it defects that depend upon the variability of human beings. Medical service is not a mechanical gadget that can be fabricated. Medical service is the relationship of a doctor and a patient, and both are animated human individuals, both equipped with their own personal psychology, and the character of the medical service rendered is the application of scientific knowledge plus certain intangibles to the patient's medical problem. This is not an insurance proposition that can be calculated or estimated upon an actuarial basis.

Human nature being what it is, the adoption of the insurance principle for medical services puts a premium on malingering and extension of days of illness. The average loss of time to a workman in the United States by illness is six and one-half days, in Germany under the *Krankenkasse* thirteen days, and in England under the Panel System eleven and one-half days. The expense of administration of sickness insurance in England amounts to over one-half of the total amount paid to the physicians and the number of nonmedical workers in Germany is greater than the total number of physicians doing the medical work.

No patient should have cash benefits for being sick. Is it reasonable to suppose that a man being sick, not working, in a hospital, being supplied with physical accommodations, food, and attention and \$4.00 a day while being sick, will be anxious to return to work?

We believe that it is essential that the following conditions be made paramount in the consideration of medical services: (1) the maintenance of the voluntary hospital system; (2) the advance of medical science and the increasing ability of scientific medicine to serve the public in health and in disease have created new problems of medical service and medical costs. *In the past, the medical profession has always been willing*

*to give of its utmost for the care of those unable to pay.* The available evidence indicates that today throughout the United States the indigent are being given high quality medical care and medical services. Nevertheless, the advances of medical science have created situations in which a group of the population neither wholly indigent nor fully competent financially find themselves under some circumstances unable to meet the costs of unusual medical procedures. *The Board of Trustees of the American Medical Association points out the willingness of the medical profession to do its utmost today, as in the past, to provide adequate medical service for all of those unable to pay either in whole or in part.* Members of the medical profession, locally and in the various states, are ready and willing to consider ways and means for meeting the problems of providing medical service and diagnostic laboratory facilities for all requiring such service, and not able to meet the full cost thereof. These are financial and administrative problems of local and state administration primarily rather than problems of federal responsibility. The willingness of the medical profession to adjust its services so as to provide adequate medical care for all the people does not constitute in any sense of the word an endorsement of health insurance, either voluntary or compulsory, as a means of meeting the situation.

(3) Certification of indigents, fairly, sincerely, honestly, and sympathetically by the application of standards of eligibility, by central bureaus under the department of welfare, with proper representation from the county medical society. It should not be the function of the out-patient department to pass upon the validity of indigents nor should they admit for free services those that are not in truth indigents.

(4) Census of the indigents—to learn what our load is and how to take care of it. There should be devised a positive means of identification to prevent padding of the lists.

(5) The complete financial separation of the free out-patient department of hospitals from the private or pay services of the hospital.



(6) Limitation of the number of patients that may attend any one clinic.

(7) Recognizing that committees of the senate and of the house of representatives of the United States government and a special committee appointed by the President are at this time concerning themselves with the reorganization of government activities with a view to greater efficiency and economy, and recognizing also that the President, in his opening address to the congress, indicated that he would shortly present to the congress recommendations for such reorganization of governmental activities in the executive branches, and recognizing moreover the great desirability that all activities of the federal government having to do with the promotion of health and the prevention of disease might with advantage be consolidated in one department and under one head, the Board of Trustees of the American Medical Association recommends that such health activities as now exist be so consolidated, which should not, however, be subservient to any other charitable, conservatory, or other governmental interest. It has been repeatedly said that public health work is the first problem of the state. *It is the opinion of the Board of Trustees that health activities of the government, except those concerned with the military establishments, should not be subservient to any other departmental interests.* This reorganization and consolidation of medical departments need not, under present circumstances, involve any expansion or extension of governmental health activities, but should serve actually to consolidate and thus to eliminate such duplications as exist. It is also the view of the Board of Trustees that the supervision and direction of such medical or health department should be in the hands of a competently trained physician, experienced in executive administration.

(8) *Unequivocal opposition to all forms of compulsory health insurance. Insurance schemes tend to relieve the individual of his own responsibility and to increase the prolongation of illness. In short, under an insurance scheme it is profitable for an individual to be sick.*

It should be apparent that any hospital—

private, semi-private, or voluntary—which does not contribute to the taking care of the indigents within its zone should not enjoy tax exemption.

Let me ask the nonmedical portion of my audience the following questions:

Do you want the death rate from diphtheria to increase? Do you want a rise in the incidence and mortality of tuberculosis? Do you want more infants under one year of age to die?

In the United States the mortality per thousand infants under one year of age in the eight leading cities averages from forty-eight to fifty-seven. In the nations of Europe with compulsory health insurance, such as in fifty-two German cities, there was an infant mortality of sixty; in 121 English cities, sixty-three; in Berlin, fifty-nine; in London, sixty-seven.

As a citizen and a taxpayer do you want a card and a number? Do you want the free choice of your own physician? Do you want the cancer death rate of England and Wales of 156.3 per 100,000, as against this country with a rate of 106.3?

All of these—increased morbidity and mortalities—are yours under compulsory health insurance. *If you want lower morbidity and mortalities, free choice of physician, free independence of your hospital system, then keep the shackles of political domination off your own health program by continuing an independent, scientific, and progressive medical profession.*

The medical profession “does not rely on endowment, but on its own exertions directed to meeting human wants. There is no great profession which has so little to say to the public purse, and which so moderately and modestly dips its hand into that purse. It is not only in the interest of the public, but of the profession itself that it is eminently self-supporting; and, rely upon it, that principle of self-support does much to maintain its honor and independence, and to enable it to pursue its stately march in the times that have come and in the times that are coming, to form its own convictions, to act upon its own principles without fear or favor, for the general benefit of mankind.”

## PRESIDENTIAL ADDRESS\*

W. L. WILLIAMSON, M.D., Memphis

**M**R. CHAIRMAN, Ladies, Honor Guests, and Members of the Association: I feel that you, as well as the House of Delegates, are entitled to receive an accounting of my stewardship as your president.

At the beginning of my remarks I want to thank collectively and individually the officers, committeemen, and members for the thoughtful and efficient work they have done during my tenure of office.

In order that I might be better informed on the general matters of medical interest, I attended the House of Delegates of the American Medical Association in Kansas City. My official position admitted me to all sessions. I spent the entire time they were in session with that interested, earnest, intelligent, hard-working body of men. If I had had any doubts before, which I did not have, concerning their interest in the country doctor, wherever he might live, all doubts vanished. I came home not only feeling that we had a friend at court, but that the whole court was 100 per cent behind all of us, wanting to help us solve any, or all, of our problems and eager to give us every assistance.

I attended the annual conference of secretaries of the Constituent State Medical Associations in Chicago. These men were from the fields of action and with firsthand information from every part of the Union. They were there with problems for solution. They were there to report problems already solved.

Surgeon-General Thomas Parran of the United States Public Health Service was there and presented an excellent paper. I will state here that I believe he wants to act with us in order to accomplish the greatest good.

Also at this meeting was our distinguished president of the American Medical Association, Dr. Charles Gordon Heyd. He

made a most beautiful address of welcome to the secretaries.

Later, at Baltimore, I attended the meeting of state presidents representing seventeen states covered by the Southern Medical Association. Dr. E. H. Cary of Dallas, one of the trustees, and a former president of the American Medical Association, addressed us.

These visits and contacts gave me unbounded confidence in the leaders of American medicine. It made me feel that I could approach the doctors of Tennessee and tell them with confidence that the ship is well manned and ready for rough seas.

I have visited in all parts of the state. I have attended the society meetings of the seven largest cities and all of the counties in West Tennessee. In every place there has been evidence of interest and a desire to cooperate. I am convinced it can be conservatively stated that never at any previous time has our state been more closely united. There is a greater effort on the part of the profession to serve efficiently the people of Tennessee. The quality of the profession is constantly improving, and the knowledge of the members on questions of general interest to the profession has been greatly widened. The members of our association are more keenly alive to national affairs, which may influence the quality and character of medical service to the public in the future.

Let us *always* remember that the only reason for our existence as a profession is the promotion of medicine, and, through it, service to our fellow man by the improvement of public health. But there is *still room* for improvement. I have seen conscientious doctors devoting long hours in an intelligent effort to give their patients the best attention that could be had. They are studious, hard-working men and cover their field, giving their patients excellent service. But a few of these able doctors seem to be unaware of the threat to their security

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which has been planned by distant, *self-named* social workers, and politicians, *self-appointed* protectors of the people. This smaller group, which is composed of some of our most worthy members, must be stimulated to a broader view and a more active cooperation with our parent organization. They are the salt of the earth, professionally, but the salt must not be allowed to "lose its savor." They are the men difficult to arouse, but who, once aroused, fight to the end. They must be aroused to the full significance of the situation now confronting them and all of us.

Every doctor in Tennessee must be made to see the enormous value and the hopeful and helpful protection of the *complete* organization of the county medical society, the state medical association, and the American Medical Association, the *only* organizations representing every doctor in the United States and the *only* organizations in which every man can exert an influence for the common good. Other medical organizations may have a place, and an opportunity for good, but their influence cannot compare with the fundamental organizations of the county, state, and national associations.

Already our professional independence might have been destroyed had it not been for the watchful, thoughtful, and prompt action of our American Medical Association. The dangers of the exploitation of the profession at the hands of otherwise unemployed social workers, and self-designated "public benefactors," has not yet passed. However the observant minds of our citizens have begun to analyze the proposed plans, and a more conservative attitude has been assumed.

The public of our state and nation will be compelled to demand that it be allowed to handle its own private affairs. The people will not permit an enormous tax burden to be placed on their shoulders in order to have someone else tell them what they already know.

I believe one of the great barriers to the progress and unity of our profession comes from our own ranks. We must find some way to destroy the lack of zeal for our common cause which exists among many of our

members, and a way to get rid of a few unscrupulous members who have crept into our ranks. We do not deserve, and cannot expect, the progress and loyalty which we would like to have if we do not keep our *own* house in order.

In recent years there has been a great increase in malpractice suits. This has been created to a degree by unscrupulous lawyers, who are a blot on the otherwise fair escutcheon of that profession. We cannot clean *their* house. If every member of our profession would live up to the requirements of the code of medical ethics, these malpractice suits would speedily vanish. There are very few cases where an unscrupulous lawyer could make any headway without the assistance, to put it mildly, of an unethical doctor. We are not always careful about remarks made to patients who have been under the care of our colleagues. In addition to personal egotism, the greed for undeserved profit from unfairly acquired patients is responsible. These words may sound harsh to some ears, but the truth is not always pleasant. Strict adherence to the code of medical ethics is the best protection the public has and, also, it is the best protection to the medical profession.

We are striving diligently to improve our medical laws for the protection of the public. A revised Medical Practice Act has been prepared and presented to the state legislature. If we can be successful in obtaining such legislation, we will be able to rid the profession of undesirable men who furnish unfair competition and who practice on the uninformed public which is not prepared to judge of their qualifications.

The Basic Sciences Law, which we have been endeavoring to have the legislature enact, is the most effective means of protecting the public from so-called practitioners of the healing art ever attempted. It does not seem now that we can possibly get the Basic Sciences Law passed by this year's legislature. We should use all our influence to try and get our Medical Practice Act passed during *this* legislature and have our legislators thoroughly informed of the advantages to the people of a law on the Basic Sciences before another legislature



convenes. It is our very earnest hope this law will be enacted. The cults and the healers of variegated hues oppose such a law. Regular medicine strongly favors it.

Friction which exists at too many points in our profession can be greatly reduced, or largely eliminated, by closer association among the members. There is no higher class of men in the world, as a group, than is found in the ranks of the medical profession. If they can be brought in close contact with each other, become better acquainted, each will learn that the other is a better man than he had supposed. This closer association in medical groups is also necessary to the scientific advancement of our profession. There is no argument against this closer association. It is "the tie that binds."

I believe we have under way, at this time, the greatest means of improving our membership that we have ever had. I refer to our postgraduate course in obstetrics now being given in our state. Under our Educational Committee we have the Maternal Welfare Committee. This State Maternal Welfare Committee, composed of the chairman, Dr. James R. Reinberger, Memphis; Dr. Milton S. Lewis, Nashville; Dr. H. B. Hewitt, Chattanooga; and Dr. Andrew Smith, Knoxville, did an enormous amount of work in the initial planning of this program. After their plans had progressed to a satisfactory degree, there was then created the Committee of Postgraduate Instruction in Obstetrics. This committee was composed of four representatives of the state association and three representatives of other contributing organizations. Representing your state medical association were: chairman, Dr. James R. Reinberger, Memphis; chairman of the Educational Committee, the late Dr. Otis S. Warr, Memphis; former president of the state association, Dr. Owsley Manier, Nashville; trustee of the state association, Dr. Franklin B. Bogart, Chattanooga; representing the Board of Health of the State, Dr. J. M. Lee, Nashville; representing Vanderbilt University, Dr. John Youmans, Nashville; and representing the University of Tennessee, Dr. O. W. Hyman, Memphis.

This committee spent a great deal of time in further completing the organization of this work. They assured the Commonwealth Fund of New York of their earnest desire and of their ability to conduct a postgraduate course of benefit (through the profession) to the people of Tennessee. The Commonwealth Fund was very generous in their addition to the funds already made available in this state through the work of the committee. This committee, after corresponding with almost every medical teaching institution in America, invited five prospective instructors, whose qualifications led the committee to believe they would make the most desirable teachers. After interviewing each of these five gentlemen personally, the committee was unanimous in the selection of our teacher, Dr. Frank E. Whitacre.

Through the same thorough process of investigation they were able to secure one as well qualified from experience and training for a field organizer, Mr. L. W. Kibler. His long training in this field of work, his understanding of the medical profession, his early college and university training, his character and his dignified deportment make him as valuable in his organization work as Dr. Whitacre is as a teacher. Mr. Kibler entered the field around Memphis the first of last December. In the first circuit he established five centers which were to be visited each week for ten weeks. These centers were Covington, Brownsville, Jackson, Selmer, and Bolivar.

In my enthusiasm and deep interest in the success of this program I went with Mr. Kibler and Dr. Whitacre on their initial trips to each of these centers. These doctors were told of the time and effort which had been necessary to bring this program to them. The fact was impressed that this was *their* project, and Mr. Kibler and Dr. Whitacre had been employed by *them* for *their* use and help. They were urged to feel free to use Dr. Whitacre in consultation with their obstetrical patients and to bring their patients to his lectures for demonstration before the group. It was also urged that they cooperate in every way to add to the success of the program.

At the end of ten weeks, when the last visit to each center in this circuit was made, I again accompanied these gentlemen. It was very gratifying and made me feel that all the efforts of the officers and the committeemen, and all the funds which had been used, had brought satisfactory returns far in excess of our expectations. Two societies in this circuit, which had been entirely inactive for several years, were reorganized and reactivated. These doctors have enthusiastically received this course. They have been brought in closer contact, and there has been a stimulated interest which will make them better doctors, better friends, and the public will be greatly benefited. They could not have received, as they repeatedly relaté, as satisfactory a post-graduate course in any medical center. At the same time they have remained at home in touch with their offices. This, gentlemen, I believe is the ideal method of post-graduate teaching. Every effort must be made to continue this work under the direction of the state association in other branches of medicine. This will improve our ethics, improve our doctors, improve our county, state, and national medical organizations, and greatly benefit our people. With these improvements, if there *is* a better way to dispense medical services to the

public, and if we are convinced that some other method *is* an improvement, we will be in a position to direct these changes, and we will *still* be the proper custodians of medical activities, and we will render the most valuable medical services possible to the people of America.

Let us firmly resolve that there shall be but *one* class of doctors—good doctors! And *remember*, you who neither hold an office in your state association nor have ambition to hold one, that those who *are holding* offices, subject to *your own selection*, do so with but *one* thought—to serve the medical profession of this state and this nation and, through them, the *people* of this state and this nation! There have been no great battles in the world's history where certain divisions of the army did not have some weak or selfish elements which would have failed in the face of fire had it not been for the steadfastness of the faithful. One of the grandest words in any language is that word *faithful*! True to a trust invested in you, imposed upon you, and dependent upon *you* for execution!

And, further, let us feel in our hearts with intense sincerity of purpose, and with honesty of interest in our fellow man, that we are standing at Armageddon and we are battling for the right!

EXTRAUTERINE PREGNANCY OF LONG DURATION, WITH  
REPORT OF A CASE OF SIXTEEN MONTHS' DURATION\*

P. E. PARKER, M.D., Johnson City

OVER TWENTY-FIVE years ago, when I was a medical student, we saw a Negro woman at Charity Hospital in New Orleans who had fetal bones protruding through the abdominal wall. This woman had carried the fetus until there was complete disintegration of the fetal soft parts and the bones were being expelled spontaneously through the abdominal wall. The only symptom causing this woman to come to the hospital was the protrusion of these fetal bones.

The symptoms and diagnosis of extrauterine pregnancy are described in practically all standard textbooks on obstetrics, and I will not burden you with these details. Of course, extrauterine pregnancy of nine months' duration, or longer, is not usually diagnosed until the time of operation, or it would not be allowed to run so long. However, in advanced cases, operation may be delayed so as to obtain a living child. Even cases operated on in early pregnancy are probably not diagnosed correctly prior to operation in more than fifty per cent of the cases.

Fink<sup>1</sup> reports seventy-eight cases operated, forty coming in under false diagnosis.

Leo Brady<sup>2</sup> reports a specimen belonging to Dr. DeWitt Casler, the operation by Dr. Frank Walke, where a calcified fetus, wrapped in omentum, had remained in the patient's abdomen for sixteen years, she having given birth to two full-term, normal children during this time.

Davidow<sup>3</sup> reports 117 chronic cases in which eighty-six were diagnosed as tubo-ovarian abscess. In ninety of these, a sedimentation test was done. The rate was not as rapid in these chronic ectopics as in pelvic infections. Ludwig<sup>22</sup> says, "A sedimentation time of sixty minutes or over highly favors ectopic pregnancy."

Da Costa Simoes,<sup>4</sup> in a re-edited article written by Geraldino Brites, reports a case

of extrauterine pregnancy of forty-three years' duration, the fetus remaining in the abdomen from 1838 to 1881, at which time the woman died and a positive diagnosis was made by autopsy.

Dinetz<sup>5</sup> reports a case of extrauterine pregnancy of nine years' duration. The diagnosis was not made until time of operation.

Mariantchik<sup>6</sup> reports a full-term extrauterine pregnancy terminating in the birth of a mature, living fetus, and says, "Even at present extrauterine pregnancies during their second half, or at the end of pregnancy, are only rarely diagnosed. This is probably due to the fact that the number of cases of this type is very small." Up to 1906, Sittner collected from the literature 179 cases where a living child was removed from a case of extrauterine pregnancy.

Hellman and Simon,<sup>7</sup> in 1935, reported five cases of intra-abdominal pregnancies with the delivery of living infants. They collected 311 cases from the literature.

Wilson<sup>8</sup> reports a full-term ectopic pregnancy, not diagnosed as ectopic until after the fetus had been violently driven through the pouch of Douglas, ripping the uterus almost completely from its attachments.

Fruhinsholz and Michel<sup>9</sup> report a full-term abdominal pregnancy in which correct diagnosis was not made until the cervix had been dilated. This was followed by diagnosis of transverse presentation of the dead fetus, for which spinal embryotomy was advised. After all this, one of the authors was called in and a laparotomy was done, the dead fetus was delivered, and the mother died.

Nuzhnov<sup>10</sup> reports a case of extrauterine pregnancy of sixteen months' duration, but does not give his preoperative diagnosis.

Hauch<sup>11</sup> reports two cases of extrauterine pregnancy of ten and eleven months' duration, respectively, the diagnosis not being made until time of operation.

Petersen<sup>12</sup> reports two cases of extrauterine pregnancies of eleven and twelve

\*Read before the Washington County Medical Society, Johnson City, Tennessee, February 4, 1937.



months' duration, respectively, one diagnosed at operation, and, in the other, X-ray examination of the abdomen showed the shadow of a child's spinal column situated in the uterus, but "the author, of course, knew very well the fetus could not be in the uterus."

Wittamer<sup>13</sup> reports a nine months' extrauterine pregnancy, not diagnosed until an external version was attempted after X-ray showed transverse position, induction of labor attempted by introduction of a metal sound, quinine orally, and the cervix dilated. After all this a laparotomy was done and the patient died one and one-half hours later.

Aievoli<sup>14</sup> reports a case of extrauterine pregnancy of four and one-half years' duration with correct diagnosis at the time of operation.

Richards<sup>15</sup> reports a case of extrauterine pregnancy at term, with delivery of a healthy baby, but he thought he was doing an ordinary Caesarean until he found he had just made an incision into the sac only instead of the uterus.

Bronaugh<sup>16</sup> reports a case of abdominal pregnancy two weeks past term with a correct diagnosis just prior to operation.

E. R. Hart<sup>17</sup> reports a fetus removed from the abdominal cavity after three years' standing. The diagnosis was not made prior to operation. It is interesting to quote the following from Hart's description of the operation: "A medium incision was made and enlarged from the ensiform cartilage to the symphysis."

McCown<sup>18</sup> reports a case of extrauterine pregnancy of eighteen months' duration. The diagnosis made just before operation was fibromyoma with dense pelvic adhesions.

Langley<sup>19</sup> reports a full-term retroperitoneal abdominal pregnancy with the diagnosis not made prior to operation.

Frolov<sup>20</sup> reports a case of extrauterine pregnancy of nine months which terminated in the birth of a viable fetus. The correct diagnosis was made just prior to operation.

#### TREATMENT

The majority of these cases are instances of secondary abdominal pregnancies with the child lying in the peritoneal cavity,

enclosed in a sac composed of fetal membranes and newly-formed adhesions, with the placenta attached to the pelvic floor, omentum or intestines. In a few cases an advanced ectopic pregnancy with a living fetus has been found in an unruptured tubal or ovarian sac, or between the folds of the broad ligament. When the fetus is alive, the circulation of the placenta may be so active that when it is removed, profuse hemorrhage follows. For this reason, although it is always desirable to remove the placenta with the fetus, it is at times unsafe to do so. Beck<sup>21</sup> advocates removing the fetus, leaving the placenta in situ and closing the abdominal wound without drainage. In certain experiments made by him a placenta which had been removed from a woman by Caesarean section was placed in the peritoneal cavity of a dog. The animal recovered and when the abdomen was opened three months later no trace of the placenta could be found.

The usual procedure has been to incise the sac, remove the fetus and then sew the edges of the sac to the abdominal wound and pack the cavity with gauze. However, this prolongs the convalescence. If the fetus is dead, in advanced cases of ectopic pregnancy, there is much less danger of hemorrhage when the placenta is removed.

Bronaugh<sup>16</sup> says extrauterine pregnancy, past term, is unusually rare, occurring once in about 20,000 confinements.

The condition being so unusually rare, an additional case seems worthy of report. Mrs. E. M., a primipara, was referred to me by Dr. W. H. Arrants, June 18, 1932. She was complaining of soreness in her abdomen and back. Past history was negative except she had had D. & C. and tonsillectomy in January, 1931. In August, 1931, she was taken to a hospital in Akron, Ohio, for treatment on account of pain in the abdomen, and in September, 1931, her condition was diagnosed as pregnancy. She did not menstruate from August, 1931, to January, 1932, at which time she had three chills a few days apart with some elevation of temperature. Chills lasted thirty or forty minutes. Following this she could not eat anything for nine weeks. Prior to chills she thought she felt some quickening movements, but none were felt after the

chills. She also menstruated after having the chills, passing something described by her as looking like liver. From this time on menstruation was regular every month. At intervals there was a profuse vaginal discharge, described as looking brown, like muddy water.

The first of April there was terrible pain in both sides when the patient again passed material that looked like liver. On June 22, 1932, this patient was seen by the author. Physical examination was negative, except milk in the breasts; the abdomen was the size of five or six months' pregnancy. No fetal heart sound heard, and, after vaginal examination, my diagnosis was four to six months' pregnancy.

The patient was very anxious to have the uterus emptied, saying she was too sick to wait. The history shows a D. & C. in January, 1931, and it was thought some of the symptoms might be due to a desire to have the uterus emptied. Watchful waiting was advised, but the patient was not seen again until the third of January, 1933, at which time she was still complaining of pelvic pain and general debility. The vaginal examination at this time was unsatisfactory on account of pain. A hard mass, apparently involving the uterus and lying against the symphysis, was felt. This was immovable. The diagnosis was now changed to fibroid with adhesions.

On January 4, 1933, with the assistance of Dr. W. H. Arrants, a laparotomy was done. The tumor, a necrotic, shriveled female fetus, apparently full term, did not involve the uterus and was delivered, sac and placenta, with no serious hemorrhage. The abdomen was closed without drainage.

The patient made an uneventful recovery and left the hospital on the fourteenth day. From the history and findings at operation, it is our conclusion that the fetus died at time of chills in January, 1932.

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# BILATERAL CYSTIC TERATOMATA OF THE OVARIES

(Report of a Case, with Slides)\*

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THE RECENT finding of bilateral dermoid cysts of the ovaries at operation stimulated my investigation of the literature on these bizarre neoplasms. My surprise at some of the reported data prompts the following summarizing review and report of a typical example.

## NOMENCLATURE

Although the names, dermoid and teratoma, are the ones most commonly used for these tumors, the following terms actually appear in the literature and are often used interchangeably: teratoid, teratomatous dermoid, embryoma, morular tumor, solid tridermoma, mixed cell tumor, struma ovarii, teratoma embryonale, teratoma adultum, and sarcoma.

The word, dermoid, means like skin, and hence, should be confined to those true dermoids which are congenital skin inclusion tumors found at lines of embryonic fusion and composed of ectodermal tissue alone. The term, dermoid cyst, when applied to the ovary is, strictly speaking, a misnomer, for these tumors are nearly always composed of tissue derived from all three germ layers.

Teratoma is a combination of the words, *teras* meaning monster and *oma* meaning tumor. The solid teratoma is also composed of tissue derived from all three germ layers and probably has the identical origin as the dermoid cyst. It would therefore seem logical to class both as teratomata, differentiating the two by the terms, cystic and solid teratoma.

## ETIOLOGY

All explanations of the origin of the teratoma must assume that the cell from which it springs is totipotent. Metaplasia<sup>22</sup> certainly is a weak assumption. Most of the various theories advanced can be grouped under three headings: (1) twin inclusion,

(2) germ cell theory (usually attributed to Wilms), (3) the blastomere theory of Marchand and Bonnet.

The first still has its proponents<sup>23</sup>. It assumes that one of uniovular twins, either by improper development of one or abnormal growth of the other, is enveloped in, and overgrown by, its mate, later developing into a teratoma. Naturally, this theory has many objections<sup>21</sup>.

The germ cell theory is probably in greatest favor. It has had many ingenious explanations which fall into one of two groups, abnormal impregnation and parthenogenesis. A germ cell theory readily accounts for multiple teratomata and the preponderance of these tumors in the genitalia, but totally fails to explain the origin of the extragenital ones.

The blastomere theory advances the possibility of a somatic cell being shaken loose and becoming lodged with the sexual cells in that early stage of development when the embryo is termed a morula and is composed of a relatively few totipotent cells called blastomeres. This easily explains the genital, and the reverse would account for the extragenital teratoma. However, it is hard to conceive of twenty-one blastomeres being shaken loose and becoming implanted in future ovarian tissue. Yet, such would have to be to explain Novak's case of eleven dermoids in one ovary and ten in the other.

The fact that so many different theories have been advanced demonstrates that no single theory explains the origin of all of these tumors, and probably the true histogenesis is still unknown.

## PATHOLOGY

Grossly the cystic teratoma of the ovary cannot be distinguished from other ovarian cysts (Fig. 1) unless hair, sebaceous material, or bone can be felt or seen through a thin part in its wall. What remains of the ovary is usually spread out thinly over a

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Fig. 1. Bilateral cystic teratomata of the ovaries (Case 1).

portion of the cyst. Occasionally it is completely destroyed. Most often the cyst lies free except for its pedicular attachment, though it may be firmly adherent to any organ in the pelvis.

The content of the dermoid cyst is the most characteristic of all tumors. It consists of a turbid, oily fluid usually yellow, but red or brown if bleeding has taken place; a thick greasy, dirty white sebaceous material; and matted or felted hair. Rarely the sebaceous material is found in amazingly uniform balls (Fig. 2). Koucky counted 847 of these in one cyst.



Fig. 2. Contents of larger tumor in Fig. 1. Note sebaceous material in shape of small spheres, also matted hair.

The cystic teratoma is composed of the solid portion called the "core" or "plug" and the larger cystic portion into which the core is growing. The core is characteris-

tically covered with white skin from which the hairs arise. Since the core is the embryonic rudiment, this is the area which should be sectioned in pathologic study. Tissues of ectodermal origin are always found in the core. Usually tissues derived from mesoderm and often from entoderm are seen as well. Almost all of the different tissues of the body have been found in these tumors. Teeth often protrude from the core or may be found extruded within the cyst. Malformed digits with nails and masses resembling mature structures of a rudimentary monster have even been described.

Thyroid tissue often occurs in the teratoma<sup>46, 53</sup>. It may be scantily found in the core, or it may comprise the only structure of the tumor<sup>47, 49</sup>. The latter are termed "struma ovarii" and link the cystic with the solid teratoma. The thyroid tissue is almost never functional beyond the formation of colloid<sup>45</sup>. However, Kovacs reported a case in which symptoms of exophthalmic goiter had developed with the tumor, and disappeared after its removal.

A cystic teratoma is often associated with other ovarian neoplasms<sup>56</sup>. The most frequent is the multilocular cystadenoma<sup>35</sup>.

The solid teratoma is composed of more embryonal tissues than those found in the cystic type. They are also in a confused association and lack the attempt at definite structure so characteristic of the dermoid.

#### INCIDENCE

In the ovaries cystic teratomata are found in women of all ages. McClellan states that they have been found in premature infants and in women as old as eighty-four. They are most frequently found during the child-bearing period. In Furlong's series of fifty cases, thirty were in women between twenty-one and forty years of age.

The cystic teratoma is a frequent ovarian tumor. Gordon reported that eight per cent of 125 consecutive ovarian tumors at Bellevue Hospital were of this type. MacCarty found 8.7 per cent of nearly 6,000 ovarian cysts at the Mayo Clinic to be dermoids.

Polak states that before puberty they are the commonest ovarian tumors.

Cystic teratomata are often bilateral. Marshall found 15.4 per cent in both ovaries in 415 cases. Miller found them bilateral in twenty-five per cent of ninety cases.

They are not so frequently multiple in one ovary. Both Koucky and Miller found this incidence to be seven per cent.

The solid teratoma is one of the rarest ovarian neoplasms<sup>14, 15, 19, 50.</sup>

#### MALIGNANCY

In the ovary as elsewhere, the cystic teratoma is primarily a benign tumor. Yet Ewing states that following rupture of the cyst implantation metastasis may occur by local dissemination. Martin speaks of peritoneal metastases consisting of minute knots, each furnished with a small tuft of hair. These instances must be of unusually rare occurrence and should be considered transplantation phenomena rather than actual malignant metastases.

Occasionally, however, true malignancy develops within the cyst. MacCarty found seven carcinomata in 526 ovarian dermoids. Wiener reported carcinoma in five per cent of a series of sixty cases. In 408 cases Counseller and Wellbrock found the incidence to be 1.7 per cent. In 1914 Lapouge collected forty-three cases of malignancy in dermoids from the literature. Masson and Ochsenhirt, however, were only able to find thirty-three authentic ones in 1929. Two years ago, Counseller and Wellbrock brought this total to forty-three.

Just as skin and epithelial elements predominate in cystic teratomata, squamous cell carcinoma is the predominant type of malignancy, and almost all of the authentic cases are of this variety<sup>13, 29, 35.</sup> MacCarty, however, reported a melaneopithelioma in a dermoid and Spalding a basal cell carcinoma.

Rapid growth, penetration of the cyst wall, invasion of adjacent structures, and distant metastasis is the usual course of carcinoma, when it occurs in these tumors.

#### SYMPTOMS AND SIGNS

The symptoms that a cystic teratoma of the ovary present are often vague, as well

as varied. Generally, they are similar to those of any cyst of the ovary, namely, pain, or bearing down sensation in the lower abdomen, frequency of urination, constipation, pain or edema in the legs, and varicose veins. Sometimes the patient can feel the tumor herself.

Menstrual function is usually unaffected when the cyst is unilateral. But, when cysts are present in both ovaries, diminished flow, increased intervals between periods, and even amenorrhea and sterility are frequently manifest.

The physical signs are limited to the occasional bulging of the lower abdomen and the presence of one or more palpable masses in the pelvis.

#### DIAGNOSIS

The preoperative diagnosis of cystic ovarian teratoma is seldom made; of bilateral ones almost never. The reason for this is evident. In the first place, approximately nine out of ten ovarian cysts are not teratomata. There is no pathognomonic symptom<sup>2</sup> to aid in the differentiation. And pelvic shadows of the teeth and bones found by the X-ray in these cases are misinterpreted variously as ureteral calculi<sup>32, 33, 57,</sup> flebolyths, lithopedion, or calcification of hydatid cysts, of extruded epiploic tags, or of fibromyomata. However, Marshall and others<sup>9, 21, 38</sup> reported cases of cystic ovarian teratoma in which the diagnosis was made by the X-ray and confirmed by operation.

Keeping in mind that about one in every ten ovarian cysts is a dermoid and alertly scrutinizing X-ray films for shadows of teeth and bone in all cases with pelvic or pelvoabdominal tumors should materially increase the percentage of correct diagnoses of these neoplasms.

#### TREATMENT

Because cystic teratomata are prone to give rise to serious complications and to develop malignancy, the risk of operation is ordinarily much less than their sequelae. Hence, the tumors are better out than in, and surgery is a good investment for these patients.

The frequency of bilateral involvement

demands a careful inspection of both ovaries before one is removed. Where only one ovary is involved, oophorectomy, of course, is justifiable and probably preferable. In case there is bilateral involvement, Duncan and others<sup>34, 35</sup> advocate conservation of ovarian tissue in the ovary that is least destroyed. This may be accomplished by enucleation of the cyst, or resection of the tumor, leaving a small portion of the ovary. Especially is this desirable in children and young women in whom subsequent pregnancies are desired. Occasionally no remnants of either ovary is demonstrable<sup>18</sup>, then bilateral oophorectomy has to be resorted to.

Chueco reported the removal of cystic teratomata by the vaginal route, and Cox incised a dermoid in the cul-de-sac through the posterior vagina. These methods may be applicable to some special indications, but in general, the abdominal route is preferable.

Radical surgery and X-ray and radium therapy are indicated where malignancy has perforated the cyst.

#### COMPLICATIONS

The pedicle of the cystic ovarian teratoma has a tendency to become twisted. If the torsion is enough to shut off the blood supply, acute symptoms are often present to give warning of the emergency. If surgery is not employed at this stage, gangrene of the cyst wall, rupture, and peritonitis are apt to ensue. Ivens and others<sup>12</sup> have reported complete separation of the cyst by twisting off its pedicle.

Occasionally the cyst will become infected. O'Shansky reported a dermoid cyst infected with typhoid bacilli.

Perforation into a hollow viscus is not an unusual complication. Counseller thinks the adherent cysts give rise to this serious accident, especially when injured by pregnancy or labor. The vagina and rectum are probably the organs most affected in this manner, though Germaine has collected twenty-five cases in which ovarian dermoids have perforated the bladder. Mason reported an oddity. In his case a tooth in a dermoid penetrated the sigmoid. Babcock

reported a case which discharged through the umbilicus.

#### PROGNOSIS

The prognosis of the simple cystic teratoma of the ovary is excellent. That of the complicated case depends upon the complication and the mode of handling it. The prognosis of carcinoma in these tumors varies with the grade and extent of the malignancy. It is extremely grave when the cancer has perforated the cyst<sup>7</sup>. Lapouge reported a death from recurrence seven years after operation.

#### CASE REPORT

39665: Mrs. T. K., 28, white, school teacher. Admitted January 13, 1936.

Chief complaint: "Tumor of womb."

Menstrual history: Menses began at age twelve, irregular, four to twelve weeks apart, last seven to ten days. Flow scanty.

Marital history: Married three years, no pregnancies, no contraceptives. Menses have come closer together and last shorter time since marriage.

Present illness: Insidious onset two years ago of pain in lower abdomen, weakness, nervousness, hot flashes, nausea, leukorrhea, and twelve-pound weight loss.

Physical examination: Negative.

Vaginal examination: Eroded ulcerated cervix.

Bimanual examination: Uterus pushed to left by a soft round mass about four inches in diameter.

Laboratory: Urinalysis negative. Hemoglobin sixty-five per cent. R. B. C.'s 3,460,000 per cubic millimeter. Leukocytes 4,250 per cubic millimeter.

Preoperative diagnosis: Right ovarian cyst, chronic ulcerated cervicitis, sterility, and moderate secondary anemia.

Operation: January 17, 1936. Under nitrous-oxide-oxygen-ether anesthesia dilatation, curettage, and cauterization of cervix were performed. The abdomen was opened in the mid-line. The right ovary was represented by a cyst the size of a grapefruit, and the left by a cyst the size of a lemon. There was no demonstrable ovarian tissue remaining. Bilateral oophorec-



tomy, left salpingectomy, and appendectomy were performed.

Discharge: Recovery was uneventful and the patient was dismissed January 31, 1936.

Gross pathology: Cystic tumor of the right ovary fourteen centimeters in diameter consisting of a thin shell with no ovarian tissue remaining. The contents included a thin brown oily liquid, numerous small balls of sebaceous material, and hair. Cystic tumor of the left ovary seven centimeters in diameter. The wall of this cyst was thicker, yet no ovarian tissue remained. The contents were similar to those in the first cyst except the sebaceous material was not found in balls.

Microscopical pathology: Sections through the cores revealed squamous epithelium, sebaceous and sweat glands, fat and connective tissues, minute cyst lines with cuboidal epithelium, and cartilage (Fig. 3).

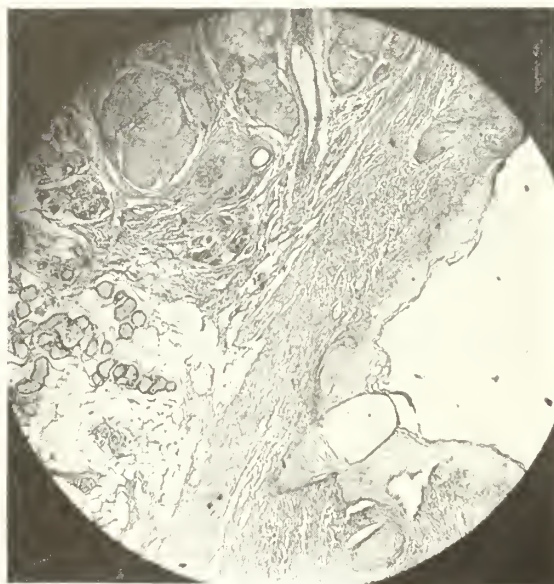


Fig. 3. Various tissues found in core of larger tumor in Fig. 1. Sebaceous glands may be seen in the 12 o'clock area, cross section of a hair at 1 o'clock, squamous epithelium at 4 o'clock, fibrous connective tissue at 6 o'clock, fat at 7 o'clock, and sweat glands at 8 o'clock. (X115).

#### SUMMARY

1. A general review of some of the literature on cystic teratomata of the ovaries is presented with the report of a case in

which one of these tumors was found in each ovary.

2. The nomenclature is manifold and needs uniformity.

3. The theories of etiology are interesting but unsatisfactory.

4. The pathology, even though varied, is typical and characteristic.

5. The incidence of cystic teratoma approximates one in every ten ovarian neoplasms. Bilateral cystic teratomata of the ovaries occur in about fifteen per cent of the cases.

6. Malignancy occurs rarely. It is usually in the form of squamous cell carcinoma.

7. There is no pathognomonic symptom of cystic teratomata occurring in the ovaries.

8. The exact diagnosis is rarely made before operation. Alertness in the clinical and X-ray interpretation of pelvic tumors will be required to improve this situation.

9. The treatment is definitely surgical.

10. Complications of these tumors are frequent and seriously detrimental.

11. The prognosis is excellent except when malignancy has developed.

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### DISCUSSION

DR. J. A. CRISLER, JR. (Memphis): Mr. Chairman and Gentlemen: Dr. Newell very kindly sent me his paper. After reading it I felt that his presentation was so comprehensive that it left very little for me to add except by way of repetition, so I decided to look back for interesting, somewhat unusual cases of cystic teratomata that we had had. My perusal went back only to 1930 because there was not a good cross index. I found that since 1930 we have had only two cases of bilateral cystic teratomata. I found one case of a multiple teratoma, that is, two cystic teratomata or dermoids in the same ovary. This multiple one occurred in a patient about thirty-three years of age. The cyst weighed about four pounds and presented two separate cysts, each with its own cord.

There was also one other interesting case, a case of dermoid cyst in association with a pseudomucinous cyst. That also was a unilateral cyst. I think the occurrence of pseudomucinous cyst is rather frequent, and some people speculate as to a similar hystogenesis.

Of the two bilateral cases that we had, one occurred in a girl aged eighteen. She had had no disturbances of menstruation. Menstruation had been regular, and she came in because of fever and bladder symptoms. She had a pyelitis and a cystitis. X-rays of the abdomen were made and showed calculi in the ureters. We could not make a preoperative diagnosis of dermoid cyst either before the operation nor could we look at the film and make the diagnosis in retrospect.

In addition to the bilateral dermoids, this girl had serious cystadenomata in both ovaries, so we were unable to preserve any worth-while ovarian tissue.

The other patient was a woman about fifty years of age who had simple large bilateral dermoids, the larger one being described as about the size of a football, the other one smaller. She had an infection in one tube in connection with the dermoid.

There has been no instance that I could find in this six-year period of carcinoma occurring in the dermoids that we had.

By way of diagnosis, Dr. Newell called atten-

tion to the X-ray of the abdomen preoperatively. It seems to me that that would be of doubtful value as a routine for three reasons. In the first place, you probably would not get a clue as to the presence of dermoid with the X-ray unless teeth or sufficient bony material were present to arouse your suspicion. In the second place, if you found evidence in the X-ray of the dermoid, you could not be sure that there did not exist also some other form of cyst in connection with it, such as a pseudomucinous cyst or cystadenoma. In the third place, the treatment would be operative any way, so that it would not benefit the patient greatly to make the preoperative diagnosis. I take the chance to be right and make the diagnosis of ovarian cyst.

I wish to thank Dr. Newell for his very competent presentation and for the privilege of opening the discussion.

DR. W. T. BLACK (Memphis): Dr. Newell has given us a splendid presentation upon a very interesting subject. I think he is correct when he classifies dermoid cystic or mature type of tumor and the solid type or embryonic type of tumor as teratomata. They are both tridermal in origin, as a rule. We may have exceptions in the form of the tumor of the ovary as a hypernephroma of the ovary, but they are nearly always tridermal and the growth is not limited to one dermic layer. Therefore, teratomata, cystic and solid types, I think is the proper nomenclature.

There are a great many tumors of the ovary whose origin we understand, but when it comes to studying the teratomata we become more or less confused. There have been many theories advanced about teratomata. For instance, at one time it was thought they were probably due to the polocyte after the beginning of maturation of the ovary, but that theory is no longer tenable and most men believe in the sex theory. That they develop from the ovum is more correct.

The blastomere theory which is believed in by some authors is really also a sex theory. After fertilization of the ovum, segmentation takes place. We know that in the starfish, for instance, at the thirty-second division we have developed an amorphous mass. It was taught for a good while that the mature type or dermoid type of cell was developed from the early split in this blastomere, as it had more adult-like cells and adult-like tissues in the ovary, which you find in the dermoid, while the solid type, which is usually malignant, are embryonic in type, and that they develop in a later stage in the blastomere segmentation.

The only objection to this theory is that these tumors, teratoid in nature, are usually found in the testicle and in the ovary. You would expect



in the blastomere theory that you would find them indiscriminately distributed in the different parts of the body.

In the ovary we have the germinal epithelial cells. We have thousands of follicles that are in a state of growth and regression, and the germinal epithelial cells are capable of generating or growing any other cell in the body, and in the growth of the ovum from the germinal epithelial cells we have the ova in various stages of development, and they go on to the mature stage in the graafian follicle and have a mature ovum. Most of these follicles regress and some of them disappear, and it may be that in a certain stage of growth of these ova in the follicle it depends upon the age of the ovum as to whether we have a dermoid or whether we have a solid type tumor. Certainly the sex theory is more plausible at present than any other theory thus far advanced.

The dermoid is a common type of tumor found occurring in five to ten per cent of ovarian tumors. The solid type is a rare type of tumor, and there have been less than seventy-five cases reported in the medical literature of the world. In 1925 I had the pleasure of reporting two of these tumors.

I have three or four slides that I might show, because Dr. Newell has shown the dermoid type of histology, and I would like to show the histology and pathology of the solid type.

(Slide.) This is the solid type of tumor. This particular type was malignant. One of these solid

types of tumors was benign and the other was malignant. They are not necessarily malignant as described in most textbooks. You find this tumor composed of different embryological structures, hair, cartilage, bone, and a little piece of the iris.

(Slide.) This is an embryonic tooth found in one of these tumors.

(Slide.) In this we have a graafian follicle with the ovum in the center of it and the cortical portion of the ovary on the outside.

(Slide.) That is the transformation into the sarcomatous type of malignancy.

(Slide.) This is a type of tumor showing some sebaceous glands, cystic glands, and connective tissue up here, a lot of fatty tissue down in the corner here, showing that you may have all the tridermal elements in these solid type tumors as well as in the cystic type.

I think it is very necessary, as Dr. Newell said, that we try to remove these tumors intact. In fact, all ovarian cystic tumors should be removed intact. You never know when one might be malignant, and you might scatter cancer cells in the peritoneum, and the material in the dermoid type is also very dangerous to the peritoneum and produces considerable pathologic changes. They often become infected and occasionally become malignant.

DR. CECIL E. NEWELL (closing): I have nothing further to add. I certainly appreciate the discussion by Drs. Crisler and Black.

## TWO CASES OF QUININE AMBLYOPIA ASSOCIATED WITH RETINITIS PIGMENTOSA\*

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**A**MBLYOPIA from too large doses of quinine has been long known, and was formerly more common than it is now, at least in my own experience in this locality. It seems to follow a very regular course in appearance and development, in that the failure of vision is complete and of such sudden onset that it is comparable to turning out a light. There is at first complete blindness, with gradual return of vision after a few days or probably weeks, and the patient regains good central vision with a contracted field. Both eyes are affected.

The amount of quinine capable of causing blindness varies very much. It has been seen after as little as twelve grains, but usually the amount is far in excess of that.

The ophthalmoscopic appearance is at first entirely negative. Even in the blind stage there is no pathology to be seen. After insignificant changes in the nerve, it gradually becomes white with great narrowing of the vessels, the arteries being visible as white cords with no visible blood current. If any further change occurs in the vision once it is restored, it is only after many years. In one case followed for more than thirty years the vision was finally lost, but in this case there was a question of whether the atrophy had followed meningitis or was due to quinine.

The very careful description of quinine amblyopia given by de Schweintz (*Toxic Amblyopias*, Lea Bros., 1896) mentions no other changes than those in the optic nerve, though he describes both the clinical and microscopic findings.

Because the two cases which I wish to report seem to be complicated by pigmentary degeneration of the retina, a brief reminder of that condition is in order.

Retinitis pigmentosa has nothing whatever in common with quinine amblyopia, as a brief mention of the accepted facts in regard to it will show. The patients are often

(in one-fourth of the cases) the offspring of consanguineous marriages, and the first symptom is night blindness, the vision in good light and in the central part of the field remaining good till late in the development of the disease. Obviously a little child would not complain of night blindness, and even if the eyes were examined in a child the characteristic changes begin so far in the periphery of the fundus that they might be easily overlooked, so that we do not know just when retinitis pigmentosa begins. It may be congenital. When the obvious visual defects of night blindness and a contracted visual field lead to an examination of the eye, the characteristic bone corpuscle shaped pigment deposits, often in front of the retinal vessels, can be seen. These changes gradually progress toward the disk, with increasing failure of vision and contraction of the field, till blindness ensues, often not till the sixth decade of life. The nerve atrophies and becomes a dirty grayish red, with an opaque look and narrowed vessels. Posterior capsular cataract is common, and may become complete.

The treatment of retinitis pigmentosa is regarded as useless. Recently Luedde has been trying a retina-choroidal tissue suspension with some encouraging results. Two minims are injected subcutaneously every ten days, increasing the dose if it is well tolerated.

While retinitis pigmentosa is unfortunately not uncommon and quinine amblyopia at least not a curiosity, the association of the two conditions, which seems to have occurred in the two cases I will report, is unusual. The association is of course purely accidental, and the interest in it only academic.

M. A. was first seen in 1914, she being then four years of age. At the age of eight months she had some acute illness for which she was given quinine hypodermically. The amount and other details of administration could not be definitely learned, but the mother thinks she took three or four hypodermics of four grains each. She lost the

\*Read before the Tennessee Academy of Ophthalmology and Otolaryngology, Memphis, April 12, 13, 14, 1936.

vision immediately, and was totally blind for three months, after which the sight began to improve, and as it did the right eye turned in and a nystagmus developed affecting the right eye almost exclusively. Under atropine dilatation the nerves of both eyes were seen to be papery white with no visible vessels except on the disks. There was a high hyperopic astigmatism in both eyes. The fields showed irregular contraction, that in the right eye being to about ten to twenty degrees, in the left twenty to thirty degrees. Vision 10/200 each eye. The changes in the eye grounds were limited to the disks, the fundus elsewhere being normal, the vessels showing as white cords carrying no blood. The history and present condition fitted exactly with the history of quinine blindness.

The patient has been observed at intervals during the twenty-two years since the first examination. In 1924, ten years after the first examination, vision was 5/200 and 15/70. With the left eye she read J III. The right eye converged fifteen degrees and showed a fine nystagmus in the forty-five degree meridian. For the first time some fine peripheral pigment changes were seen in the fundus of both eyes, and in the left a round choroidal scar was seen down and out. In 1928 posterior lens opacities appeared, in both eyes about five or six millimeters in diameter. Glasses had improved the squint, the best being O.D. + 2.00 + 2.00 Axis 90, O.S. + 2.00 + 2.50 Axis 105. She was then in the blind school. In 1932 vision was 1/200 unimproved in O.D. O.S. with + 2.50 Axis 105 = 6/20. In February, 1936, vision and refraction same. Fields same. The pigment lesions are the typical bone corpuscle shaped lesions seen in retinitis pigmentosa, more marked in O.D. and reach to within two dd. of the nerve. Lens opacities same. In this child there is no consanguinity of parents and no similar trouble in any other member of the family.

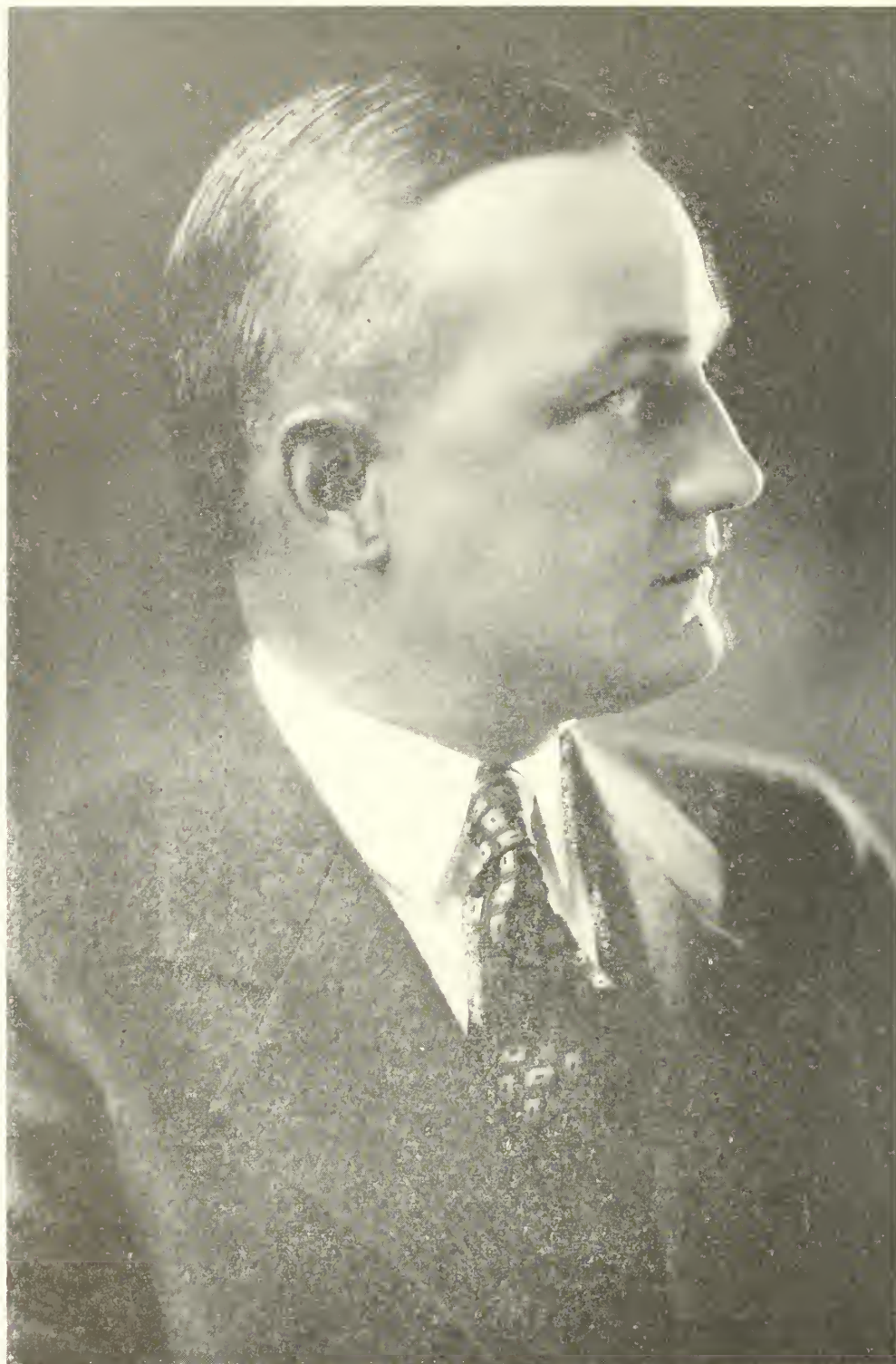
G. R., aged nine, was seen in 1912 complaining of poor vision. When two and one-half years old she was given enormous doses of quinine, namely, 300 or 400 grains within a week, hypodermically, and six months later she took eighty grains more. It is not certain just when the sight was affected, but she was blind for six weeks.

Vision 20/200 and 10/200 unimproved by glasses. The nerve heads were white, the arteries obliterated, the veins very small, and many of the veins invisible. Both fundi showed scattered dots of pigment. The parents are third cousins. The examination was not completed till three and one-half years later, when the refraction was measured under cycloplegia. Vision was 20/80 and 20/60 improved to 20/40 with + 2.50 and + 2.00. The eyes looked the same, but the pigment was noted as being all over the left fundus, consisting of superficial dots and lines, very black, but not the bone corpuscle shapes of retinitis pigmentosa. In the right eye the pigment was mostly to the nasal side of the disk, but distributed well up and down. The fields are contracted down to ten degrees in both eyes. In 1934 she reported a confinement in 1921 complicated by uremia, and an automobile accident with no injury to the eyes. Vision was a little worse, namely 6/20, and for the first time posterior capsular opacities were seen. The pigment changes came to the disk, and the retinal vessels are in places sheathed with pigment, a condition which I have seen only in retinitis pigmentosa. In January, 1936, the condition was the same in every respect. She is taking Luedde's uveal extract.

Miss G., aged sixteen, seen in 1931 with a history that when very small (8) was quite sick and given much quinine. Does not know how much was taken but knows she was blind for a while and that vision slowly returned. Vision was 6/30, improved to 6/15 with — 2.00 cylinder, Axis 180. She had horizontal nystagmus which ceased under cycloplegia. The disks were pale, vessels very small, fields contracted to thirty degrees. She is sure her eyes were all right up to the time she was eight years old. In 1933 small dotted opacities appeared on both posterior capsules. March, 1936, same.

Mrs. M., aged thirty, seen 1911. Vision always poor, especially at night. Vision 20/40 and 20/30 unimproved, nerves dirty gray, peripheral bone corpuscle shaped pigment lesions. Fields somewhat contracted. In 1934 small posterior capsular opacities O.U. Vision 5/60 and 5/200 with glasses. Fields down to ten degrees, the pigment changes reach to the macula.





GEORGE CUTHBERT WILLIAMSON, M.D.  
*President, Tennessee State Medical Association*

## *The New President*

DR. GEORGE C. WILLIAMSON, of Columbia, Tennessee, was elected to the presidency of the Tennessee State Medical Association April 15, 1937. The subject of this sketch was born at Culleoka, Tennessee, August 13, 1889, a son of the late Dr. James G. Williamson and Mrs. Ella Wilson Williamson.

He received his early preparatory education at the Branham-Hughes School of Spring Hill, Tennessee, and the Columbia Military Academy, Columbia. He received his medical education at Vanderbilt University Medical School, from which institution he was graduated in 1912. After graduation he served an internship in the Woman's Hospital of the State of Tennessee. Following his internship he served on the surgical staff of the same institution and was associated with the late Dr. M. C. McGannon. From 1914 to 1917, while located in Nashville, he was chief of the outdoor surgical clinic at Vanderbilt University.

When war was declared in 1917, he volunteered for service with the One Hundred Fourteenth Field Artillery. On account of the illness of his brother, the late Dr. James Williamson, who died in 1918, and on account of the age of his father, he was compelled to resign his commission in the Medical Corps of the United States Army and return to Columbia to take up the responsibilities of his brother and aged father. He has been engaged in the active practice of his profession in Columbia since that time.

Dr. Williamson has served as the president of his county medical society, president of the Middle Tennessee Medical Association, and Exalted Ruler of the B. P. O. E. He is a fellow of the American Medical Association and a fellow of the American College of Surgeons.

Dr. Williamson possesses the qualities which inspire confidence and admiration, both as a doctor and a very human individual. Toward his patients he exemplifies the attributes of a great physician—sympathy, understanding, scientific ability, and a high order of conscientious scruples. Toward his fellows in the practice of medicine he is considerate, ethical, and loyal. As a person he is Chesterfieldian in manner. Many of his admiring friends in the profession, and out of it, have so expressed themselves on many occasions.

He finds recreation in hunting, fishing, and reading. He is a great lover of dogs, horses, and the great out of doors. Much of his leisure time is spent in his recently constructed bachelor lodge located on the banks of Duck River, near Columbia.

Dr. Williamson will grace the high office of president of the Tennessee State Medical Association. He brings to it a charming personality, a superior intelligence, a very high sense of right, and a keen interest in the welfare of organized medicine and the services it may render humanity.

# THE JOURNAL

OF THE

TENNESSEE STATE MEDICAL ASSOCIATION

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H. H. SHOULDERS, M.D., Editor and Secretary

MAY, 1937

## EDITORIAL

### A COMMUNICATION FROM THE NEW PRESIDENT

To the Membership at Large:

I deeply appreciate your having selected me as your executive officer, and I assure you that I shall do all within my power to measure up to it.

It is through your efforts that our organization will succeed or fail, for the executive officer is only a pivot around which activities center, and results depend upon the faithful cooperation and work of each individual.

The place of a doctor in a community is one of faith and trust, and there is no profession in which higher ethics are demanded than the medical profession. Be he a renowned one in some large center or an unheard-of one in some remote district, he has the distinct duty of faithfully administering to his fellow man and many times must be more than a doctor.

Realizing our responsibilities, let us keep ourselves as the profession would have us, remembering that ours is a duty to suffering humanity.

May our organization go forward.

GEORGE C. WILLIAMSON.

### SOCIALIZING MEDICINE

Many editors of daily papers in the United States are beginning to express themselves concerning the dangers involved in the threat to socialize medicine in Amer-

ica. The following editorial which appeared in the *Lexington Leader*, Lexington, Kentucky, in the issue of April 9, 1937, is a striking example of this. With the permission of the editor it is reproduced here.

"The radicals at Washington—and they are legion—advocate the socialization of medicine, as they advocate the socialization of everything else—even religion. That would mean, ultimately, bureaucratic medicine, a medical profession under government control, paid by the government, serving on a salary basis, and giving free medical treatment to millions.

"There are countless objections to such a scheme. Private medicine during the entire period of the depression has in the most remarkable way maintained the health of the nation above the average level, and the records show that the country has had the lowest morbidity and mortality percentage in history in spite of the struggles and strains under which the people have labored, and the fact that the doctors have probably been as adversely affected by the economic crisis as any professional class in the United States.

"If medicine should be socialized and made a governmental function, the nerve of endeavor, of private initiative, of ambition to excel, of responsibility, and of professional pride and interest would be frayed if not severed. Medicine would become only another political agency dominated by the bureaucratic mind.

"The fact that there are federal and state public health services which are highly efficient and helpful does not make this dictum any the less true for the simple reason that these services are at present practically divorced from political control, and will remain so as long as American medicine is in the hands of private practitioners who set the pace and contribute the stimulating influence of the profession to the public health agencies.

"But facts speak louder than theories. Germany long ago socialized medicine, and conditions in that country, where freedom of thought, of speech, of action no longer exist, throw a powerful light on this question. For example, the latest reports gath-



ered by American observers show that in 1930 there were 36,000 *panel doctors and 32,000 bureaucrats to direct the doctors. In 1936 there were only 32,000 physicians, but 36,000 bureaucrats to direct them. Bureaucrats are increasing and doctors are decreasing in numbers.*

"Bureaucracy grows so fast that it seems to multiply on the principle of cell division. One bureaucrat makes many others necessary. Who wants the medical profession brought under a government department and controlled from Washington by a swarm of agents?"—*Lexington Leader*, April 9, 1937.

It is high time the public paid just a little less attention to bureaucratic individuals who are seeking lucrative jobs and enormous powers for themselves, at public expense, and in the name of *The General Welfare*.

#### VETERAN MEMBERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

Attention is called to the fact that the by-laws of the Tennessee State Medical Association make provisions for veteran members. The following communication from Dr. S. R. Miller, chairman of the Judicial Council, is self-explanatory and is run on the editorial page in order to give emphasis to the importance of this subject:

"To the secretaries of each county medical society:

"At the Knoxville meeting the councilors, in their effort to have every eligible doctor join a county society, found that there were reported as eligible, or recently dropped from the rolls, several very old men, who were not doing very active practice, and some of whom were invalids, or semi-invalids.

"The councilors wish to call the attention of the secretaries of the societies to Article IV, Section 4, of the state constitution, providing for veteran members.

"Some of these men have been members for many years, and have served faithfully and well the people of their section, and their medical society, and the councilors felt that it was due them to be placed on a

veteran membership roll, and so reported to the state society.

"The question of who will or will not be elected to veteran membership is entirely in the hands of the local medical society, and the veteran members will have all the privileges and rights in both the county and the state association, except voting and paying dues.

"S. R. MILLER, *Chairman.*"

## DEATHS

Dr. J. I. Mitchell, Memphis; University of Tennessee, 1919; aged 42; died April 8.

Dr. Gross Long, Nashville; Vanderbilt University, School of Medicine, 1919; aged 46; died April 19, following several weeks' illness.

Dr. C. V. Young, Lebanon; Vanderbilt University, School of Medicine, 1893; aged 69; died in May.

Dr. R. Q. Lillard, Lebanon; University of Nashville, Medical Department, 1890; died May 3.

## NEWS NOTES AND COMMENTS

The annual meeting of the American Association for the Study of Goitre will be held in Detroit, Michigan, June 14, 15, 16, 1937, with headquarters at the Book-Cadillac Hotel.

## WOMAN'S AUXILIARY

President.....Mrs. W. T. Black  
Memphis  
President-elect.....Mrs. H. E. Christenberry  
Knoxville  
Press and Publicity.....Mrs. Benj. F. Byrd  
Nashville

An enumeration of the various offices that Mrs. Black has held in the state, as well as in her local auxiliary, shows that she has been an active and tireless worker



*Mrs. W. T. Black, Memphis, president of Woman's Auxiliary to Tennessee State Medical Association.*

since its organization. Those who know her intimately can bear witness that no job has been too small or too large for her to undertake. She has served as president of the Shelby County auxiliary and vice-president of the state organization. Her activities are not confined to auxiliary interests, however. She has given much time and effort to furthering numerous projects of civic nature. The auxiliary takes pleasure in extending greetings, and wishing her joy and success in her work for this year.

From the time of our arrival with our husbands in Knoxville Monday to attend the meeting of the State Medical Association and its auxiliary until we returned home Thursday, two important aspects of successful auxiliary work—business and social—were adequately provided for. Headed by Mrs. Dewey Peters, president of the Knox County auxiliary, and Mrs. Robert Patterson, chairman of the convention committee, a happy and enthusiastic group of women entered into their duties as convention hostesses.

First of the social affairs was a luncheon at the Andrew Johnson Hotel on Tuesday

for members of the official board. Mrs. Theodore Morford, state president, was hostess. The table was decorated with a profusion of gift flowers. Following the luncheon the preconvention board meeting was held in the "Blue Room," Mrs. Morford presiding. Dr. W. P. Woods of Knoxville was introduced and brought greetings from the Advisory Council. At the close of this session, cars were at the hotel to carry visitors on a tour of some of Knoxville's loveliest gardens. Complimenting the visitors and members of the Knox County auxiliary, Dr. and Mrs. Walter S. Nash entertained at a tea of beautiful appointments at their home in Sequoia Hills, following the garden tour.

Tuesday evening a reception was given at eight o'clock at the home of Dr. and Mrs. Herbert Acuff in Sequoia Hills. Assisting Mrs. Acuff and Mrs. Peters in receiving the guests were the officers of the state auxiliary. A feature of the delightful entertainment was a musical program given by a group of local artists.

On Wednesday the auxiliary members left the hotel at eight-thirty by motor for Gatlinburg and Riverside Hotel, where the general session was held. Mrs. Morford presided with her customary charm and ability. The invocation was brought by Mrs. W. A. Bois. The official welcome was brought by Mrs. B. B. Cates, who was introduced by the president. Mrs. E. Clay Mitchell of Memphis was chosen to respond to the charming words of welcome and proved to be particularly well fitted for this privilege. Following the roll call by the secretary, Mrs. W. W. Potter, the chairman of the credentials committee, Mrs. Jesse Hill, reported ninety-eight in attendance and voting strength of thirty-seven. Among the high lights of the morning session were the president's message (watch for it in next month's JOURNAL), report of the nominating committee, and election of officers. The reports of officers and standing committee chairmen reflected the deep interest in auxiliary work throughout the state. One new county organized and a general build-up of auxiliary spirit was noted. Among the distinguished guests

present were Mrs. James D. Lester, National Hygeia chairman, and Mrs. Oliver Hill, president of the Southern Medical Auxiliary.

Following the business session, lunch was served in the dining room, which was decorated with mountain shrubbery. Miniature split baskets at each place, filled with wild flowers, featured the table decorations. Wyley Oakly, Gatlinburg guide, and some musicians of that section gave a program during the luncheon. The remainder of the day was spent visiting handicraft shops and museums. A drive to Clingmans Dome, where the guests saw "Spring in the Smokies—1937 Style," was taken, and it was a scenic wonderland of snow-covered mountain peaks with flowers blooming in coves and sheltered nooks.

The final party of the series was the annual dinner, which was held at the Cherokee Country Club, with Mrs. Dewey Peters presiding. The trophy which was given by Mrs. Morford for the outstanding paper prepared by a member of the auxiliary was awarded Miss Mary Hall of Rutherford County. Shelby County again won the prize for the greatest increase in membership. Mrs. R. G. Reaves, the immediate past president, presented the pin to the retiring president, which is a symbol of a year's service in this organization. Mrs. W. T. Black was installed as the new president, and with beautiful words of acceptance pledged her sincerest efforts to promoting the work this year.

Thursday the convention program was concluded with a trip to Norris and a post-convention board meeting, at which time Mrs. Black began her year's work and introduced the following officers and chairmen:

President-elect—Mrs. H. E. Christenberry, Knoxville.

First Vice-President—Mrs. William T. Braun, Memphis.

Second Vice-President—Mrs. William R. Cate, Nashville.

Third Vice-President—Mrs. Jesse Hill, Knoxville.

Recording Secretary—Mrs. Matt Murfree, Murfreesboro.

Corresponding Secretary—Mrs. W. S. Lawrence, Memphis.

Historian—Mrs. J. F. Morrow, Knoxville.

Treasurer—Mrs. W. A. Ruch, Memphis.

#### *Directors—East Tennessee*

Mrs. W. S. Nash, Knoxville.

Mrs. Thomas Jennings, Clinton.

#### *Middle Tennessee*

Mrs. J. A. Scott, Murfreesboro.

Mrs. Theodore Morford, Nashville.

#### *West Tennessee*

Mrs. E. G. Thompson, Memphis.

Mrs. J. C. Ayres, Memphis.

#### *Chairmen*

Archives — Mrs. Fowler Hollobaugh, Nashville.

Exhibits—Mrs. Carl Martin, Knoxville.

Finance—Mrs. E. C. Mitchell, Memphis.

Hygeia—Mrs. H. B. Brackin, Nashville.

Legislation—Mrs. J. W. Hailey, Nashville.

Organization—Mrs. H. E. Christenberry, Knoxville.

Parliamentarian—Mrs. Sidney Meeker, Memphis.

Press and Publicity—Mrs. Benj. F. Byrd, Nashville.

Program—Mrs. W. C. Campbell, Memphis.

Public Relations—Mrs. W. V. Sanford, Murfreesboro.

Research—Mrs. James Bradley, Memphis.

Revisions—Mrs. J. S. Hall, Clinton.

Jane Todd Crawford Fund—Mrs. J. D. Moore, Knoxville.

## MEDICAL SOCIETIES

### *Campbell County:*

The Campbell County Medical Society met at the Glanmorgan Hotel in Jellico on Thursday, April 29, 1937. Members present were Drs. J. L. Heffernan, J. F. Slemmons, R. W. Lewis, Joseph McCain, W. D. Gibson, G. M. Rogers, G. B. Brown, J. P. Lindsey, S. S. Brown, and R. J. Buckman.

(Continued on page 183)



## LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. Geo. C. Williamson, Columbia.  
 Vice-President for West Tennessee—Dr. F. K. West, Rossville.  
 Vice-President for Middle Tennessee—Dr. Jack Witherspoon, Nashville.  
 Vice-President for East Tennessee—Dr. Andrew Smith, Knoxville.  
 Secretary-Editor—Dr. H. H. Shoulders.  
 Assistant Secretary-Editor—Dr. W. M. Hardy.

## TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville.  
 Dr. A. F. Cooper, Goodwyn Institute Building, Memphis.  
 Dr. E. R. Zemp, Walnut Street, Knoxville.  
 Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.  
 Dr. W. L. Williamson, 915 Madison Ave., Memphis.

## COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.  
 Second District—Dr. S. R. Miller, Knoxville.

Third District—Dr. Hiram A. Laws, Jr., Chattanooga.

Fourth District—Dr. J. T. Moore, Algood.

Fifth District—Dr. John W. Sutton, Petersburg.

Sixth District—Dr. H. S. Shoulders, Nashville.

Seventh District—Dr. C. D. Walton, Mt. Pleasant.

Eighth District—Dr. J. R. Thompson, Jackson.

Ninth District—Dr. E. H. Baird, Dyersburg.

Tenth District—Dr. W. B. Burns, Memphis.

Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

Delegates to the American Medical Association—

Dr. E. G. Wood, Knoxville; East Tennessee.

Dr. H. H. Shoulders, Nashville; Middle Tennessee.

Dr. H. B. Everett, Memphis; West Tennessee.

Alternates—

Dr. E. T. Newell, Chattanooga; East Tennessee.

Dr. J. O. Manier, Nashville; Middle Tennessee.

Dr. E. C. Ellett, Memphis; West Tennessee.

## OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	VICE PRESIDENT	SECRETARY-TREASURER
Anderson	H. D. Hicks, Clinton	J. Sam Taylor, Clinton	J. S. Hall, Clinton
Bedford	James W. Reed, Belfast	James N. Burch, Shelbyville	W. B. Barton, Briceville, Assoc. Sec.
Blount	H. A. Calloway, Maryville	G. D. Lequire, Maryville	W. H. Avery, Shelbyville
Bradley	J. Lake McClary, Cleveland	W. C. Stansberry, Cleveland	W. C. Crowder, Maryville
Campbell	G. B. Brown, Jellico	R. W. Lewis, Westbourne	C. H. Taylor, Cleveland
Carroll	E. W. Hillsman, Trezevant		R. J. Buckman, LaFollette
Carter	O. F. Agee, Elizabethton	A. R. Collins, Watauga Valley	J. H. Williams, McKenzie
Chester, Henderson, and Decatur	H. T. Pitts, Henderson		E. T. Pearson, Elizabethton
Cocke	J. E. Hampton, Newport	W. C. Ruble, Newport	L. C. Smith, Henderson
Cumberland	E. W. Mitchell, Crossville		Fred M. Valentine, Newport
Davidson	Jack Witherspoon, Nashville	T. D. McKinney, Nashville	V. L. Lewis, Crossville
Dickson	L. F. Loggin, Charlotte		J. P. Gilbert, Nashville
Dyer, Lake, Crockett	J. P. Baird, Dyersburg	B. G. Marr, Dyersburg (Dyer)	R. P. Beasley, Dickson
		W. L. Sumner, Ridgely (Lake)	C. L. Denton, Dyersburg
		J. O. McKinney, Friendship (Crockett)	
Layette and Hardeman	L. D. Pope, Grand Junction	F. K. West, Rossville	A. Richards, Bolivar
Fentress	C. A. Collins, Wilder	A. H. Crouch, Forbus	J. P. Sloan, Jamestown
Franklin	Alfred Parker Smith, Winchester	Geo. E. Bogart, Sherwood	John M. Hardy, Sewan
Gibson	H. P. Clemmer, Milan	J. W. Allen, Rutherford	F. L. Roberts, Trenton
Giles	J. G. Waldrop, Lewisburg	A. W. Deane, Pulaski	T. F. Booth, Pulaski
Greene	W. T. Mathes, Greeneville	M. A. Blanton, Mosheim	I. F. Phillips, Greeneville
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	R. A. Purvis, Morristown	P. L. Henderson, Morristown
Hamilton	E. A. Gilbert, Chattanooga	A. M. Patterson, Chattanooga	J. Marsh Frere, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	Otis Whitlow, Savannah	J. V. Hughes, Savannah (Hardin)	O. H. Williams, Savannah
		V. H. Crowder, Lawrenceburg (Lawrence)	
		Paul Wylie, Hohenwald (Lewis)	
		J. W. Frost, Linden (Perry)	
		J. T. Keeton, Clifton (Wayne)	
Haywood	F. P. Hess, Bells	John P. Shearon, Gates	Roy M. Lanier, Brownsville
Henry	A. F. Paschall, Puryear	R. J. Perry, Springville	G. Graham Fish, Paris
Hickman	L. F. Pritchard, Only	C. V. Stephenson, Centerville	W. K. Edwards, Centerville
Humphreys			W. W. Slayden, Waverly
Jackson	J. D. Quarles, Whitleyville	C. E. Reeves, Gainesboro	F. B. Clark, Gainesboro
Knox	Henry Clay Long, Knoxville	A. R. Garrison, Byington	Jesse C. Hill, Knoxville
Lauderdale	J. R. Lewis, Ripley	J. H. Nunn, Ripley	Thos. E. Miller, Ripley
Lincoln	R. E. McCown, Fayetteville	R. T. Odom, Fayetteville	M. F. Brown, Fayetteville
Loudon	Halbert Robinson, Lenoir City	J. A. Mourfield, Lenoir City	J. R. Watkins, Loudon
Macon	D. D. Hower, Lafayette	P. East, Lafayette	J. Y. Freeman, Lafayette
Madison	J. C. Pierce, Mercer	John E. Powers, Jackson	S. M. Herron, Jackson
Maury	H. C. Busby, Columbia	C. O. Fowler, Spring Hill	D. B. Andrews, Columbia
		R. S. Perry, Columbia, R. F. D.	
McMinn	Boyd McClary, Etowah		D. F. Seay, Englewood
McNairy	John R. Smith, Selmer		H. C. Sanders, Selmer
Monroe	R. C. Kimbrough, Madisonville		E. P. Bowerman, Madisonville
Montgomery	Paul E. Wilson, Clarksville	M. L. Shelby, Clarksville	I. E. Hunt, Clarksville
Obion	M. T. Tipton, Union City		W. B. Harrison, Union City
Overton			A. B. Qualls, Livingston
Polk	A. W. Lewis, Copperhill	H. P. Hyde, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	R. L. Witherington, Cookeville	Thurman Shipley, Cookeville
Roane	J. C. Fly, Kingston	L. A. Killeffer, Harriman	W. W. Hill, Harriman
Robertson	E. W. Adair, Springfield	W. P. Stone, Springfield	J. E. Wilkinson, Springfield
Rutherford	T. J. Bratton, Woodbury	John F. Cason, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	Pitney Phillips, Robbins	Milford Thompson, Onida
Sevier			
Shelby	O. S. Warr, Memphis	M. W. Searight, Memphis	A. F. Cooper, Memphis, Secretary
	J. J. Hobson, Memphis, President-Elect		J. H. Francis, Memphis, Treasurer
Smith	W. B. Dalton, Gordonsville	W. F. Boze, Carthage	Thayer S. Wilson, Gordonsville
Sullivan, Johnson	J. A. Delaney, Bristol	Fred M. Duckwell, Kingsport (Sullivan)	T. R. Bowers, Bristol
		J. R. Butler, Mountain City (Johnson)	
Sumner	J. M. Oliver, Portland	C. H. Donoho, Portland	W. M. Dedman, Gallatin
Tipton	A. J. Roby, Covington	J. J. Fleming, Atoka	H. C. Currie, Covington
Warren	John S. Harris, McMinnville	E. L. Mooneyham, Rock Island	John T. Mason, McMinnville
Washington	E. T. Brading, Johnson City	G. J. Budd, Johnson City	Carroll H. Long, Johnson City
Weakley	J. E. Taylor, Dresden	T. W. Jones, Martin	P. W. Wilson, Dresden
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, Route 3	A. F. Richards, Sparta
Williamson	J. Knox Galloway, Franklin	W. F. Roth, Jr., Franklin	K. S. Howlett, Franklin
Wilson	M. H. Wells, Watertown	R. N. Buchanan, Jr., Lebanon	R. B. Gaston, Lebanon

Dr. G. B. Brown was chairman of the meeting.

After the adoption of minutes of the last meeting and the treasurer's report, the new constitution and by-laws of this county society were read to the members. The original charter, constitution, and by-laws were destroyed in a fire in the office of the late Dr. Frank McClintock of Newcomb. This constitution that was read before the society had been approved by the state councilor of this district, Dr. S. R. Miller. Dr. J. L. Heffernan moved that the constitution and by-laws be approved as read and that the secretary procure printed and bound copies of the same from the press of the American Medical Association for distribution to the members.

Dr. J. F. Slemons of Jellico gave a very interesting paper on "Infant Feeding." He brought out the basic needs of the normal growing child and discussed the more simple and most generally accepted methods of artificial infant feeding. He gave a very simple and intelligent method of calculating any baby's formula, thus obviating the necessity of continually referring to a chart. The discussion of the paper was opened by Dr. Heffernan. Discussion was free, and in closing Dr. Slemons expressed his appreciation for the generous discussion.

R. J. BUCKMAN, *Secretary*.

#### *Davidson County:*

April 6—"Perinephritic Abscess," by Dr. E. L. Rippy. Discussed by Drs. Perry Bromberg and O. N. Bryan.

April 14—There was no meeting of the academy on account of the state meeting in Knoxville. April 13, 14, 15.

April 20—"Methyl Chloride (Refrigerator Gas) Poisoning," by Dr. Albert Weinstein. Discussed by Dr. Mort Mason.

"Case Report: Aracnodactyly," by Dr. W. G. Kennon. Discussed by Dr. R. J. Warner.

April 27—"Chronic Nephritis Complicating Pregnancy," by Dr. W. B. Anderson. Discussed by Drs. Sam Cowan and Paul Warner.

"Case Report: Multiple Myeloma," by

Dr. O. N. Bryan. Discussed by Dr. Howard King.

May 4—"Treatment of Inflammation," by Dr. W. A. Bryan. Discussed by Dr. L. W. Edwards.

"Case Report: Pancreatic Lithiasis," by Dr. Jack Witherspoon. Discussed by Dr. C. C. McClure.

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#### *Dyer, Lake, and Crockett Counties:*

The Dyer, Lake, and Crockett Counties Medical Society met in regular monthly session Wednesday, April 7.

#### *Scientific Program*

"Mortality in Spinal Anaesthesia," by Dr. J. Paul Baird, Dyersburg.

"The New Dyer County Health Unit," by Dr. R. H. Hutcheson, Nashville.

"Diagnosis and Treatment of Brain Tumors in Children," by Dr. R. E. Semmes, Memphis.

"Ante-Partum Hemorrhage," by Dr. J. P. Long, Memphis.

Thirty-four were present.

The Dyer, Lake, and Crockett Counties Medical Society met in regular monthly session Wednesday, May 6.

#### *Scientific Program*

"Typhus Fever," by Dr. J. B. Cochran, Dyersburg.

"Acute Cardiac Failure," by Dr. J. A. Hanna, Memphis.

"Treatment of Rheumatic Heart Disease in Children," by Dr. J. J. Hobson, Memphis.

Our next meeting will be held on Reelfoot Lake, Wednesday, June 2. Scientific program begins at 2:00 P.M. No dues. At 7:00 P.M. a fish and chicken dinner. You are invited.

C. L. DENTON, *Secretary*.

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#### *Greene County:*

The Greene County Medical Society met at the Andrew Johnson Club, May 4. Dr. C. P. Fox, Jr., presented a paper on "Surgery of the Urinary System."

The following members were present: Drs. C. B. Laughlin, H. W. Fox, I. E. Phillips, C. P. Fox, Jr., M. A. Blanton, L. E.

Coolidge, R. S. Cowles, W. T. Mathes, C. P. Fox, Sr., and N. H. Crews.

*Hardin, Lawrence, Lewis, Perry, and Wayne:*

The Five-County Medical Society met in Waynesboro, April 27. The following papers were read:

"The Relationship Between Sinus Infections and Infections of the Chest," by Dr. G. H. Berryhill, Jackson. Discussion opened by Drs. W. L. Danley, Lawrenceburg, and J. V. Hughes, Savannah.

"This and That," by W. O. Thomas, D.D.S., Waynesboro. Discussed by Drs. J. W. Erwin, Savannah, and G. H. Berryhill, Jackson.

*Knox County:*

April 27—"Believe It or Nots in Urology," by Dr. Tom Barry.

May 4—"Gastrointestinal Surgery," by Dr. R. G. Waterhouse.

## OTHER MEDICAL SOCIETIES

The forty-third meeting of the Upper Cumberland Medical Society will convene at Cookeville, Thursday, June 24, and continue through Friday. Those desiring to present papers at this meeting should communicate with Dr. L. M. Freeman, Secretary, Granville, Tennessee.

The eighty-fifth semiannual meeting of the Middle Tennessee Medical Society was held at Clarksville, May 13 and 14.

The West Tennessee Medical Society will meet in Paris, Tennessee, May 20.

All members of the state association are invited to attend the third session of the Tennessee Valley Medical Association and Postgraduate Assembly in Knoxville, June 23, 24, 25.

A number of leading physicians in the United States will appear on the program.

Full particulars and program will appear later.

## VANDERBILT MEDICAL SOCIETY

APRIL 2, 1937

1. Case Report: "A Case of Hemolytic Jaundice Treated by Splenectomy," Dr. W. L. Fleming.

Miss N. S., aged 69, was found after careful laboratory studies to have hemolytic jaundice. Her anemia was severe but, since transfusions aggravated the hemolytic tendency, splenectomy was performed when she had only one million red blood cells and 3.6 grams of hemoglobin, and in spite of the complicating factors of age, diabetes mellitus, and cardiac insufficiency. Response to splenectomy was gratifying.

Emphasis was placed on the diagnostic value of high reticulocytosis and the fact that increased fragility of red blood cells may not be present. It was also pointed out that these cases usually stand operation well in spite of severe anemia.

The case was discussed by Drs. Edgar Jones and Hugh J. Morgan.

2. "Observations on the Mechanism of Renal Hypertension," Drs. T. R. Harrison, M. F. Mason, John Williams, Robert Williams, and Alfred Blalock.

Investigations of the caliber of the renal arteries in patients with hypertension show that in certain cases the degree of narrowing of the vessels may be sufficient to produce a significant renal ischemia. Further studies have been made of the mechanism whereby renal ischemia may lead to a rise in blood pressure. Extracts of the kidney yield two pressor substances. One of these is a small molecular compound having the chemical and pharmacological properties of tyramine. It is not specific for the kidney, but may be obtained from other tissues. The other pressor substance is a compound of protein nature and is obtained only from the kidney. The amount of the latter substance is increased in the kidneys of animals with hypertension due to renal ischemia.

This paper was discussed by Drs. Hugh J. Morgan, Walter E. Garrey, and C. S. Robinson.



3. "Meningococcus Infection of the Chick Embryo," Dr. G. John Buddingh and Miss Alice Polk.

A strain of *Micrococcus meningitidis* (Type I, Gordon's classification) isolated directly from a clinical case of cerebrospinal meningitis was carried by serial transfer at twenty-four-hour intervals through 100 generations in the chorioallantoic membrane of the chick embryo. With this method of culture the strain maintained its type specificity. The organism was highly lethal in its effects on chick embryo. Histopathological study of lesion indicated that the meningococcus had special affinity for endothelial cells of blood vessels and blood; resulting lesions were vascular in nature and were particularly prominent in heart, meninges, skin, and kidneys.

This method of culture offers opportunity for analyzing factors present in the immunity against this infection as offered by different antibodies.

This paper was discussed by Dr. Thorvald Madsen.

## ABSTRACTS OF CURRENT LITERATURE

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

Treatment of Tetanus with Tribromethanol Anesthesia.  
L. Cole. *Lancet*, August, 1935.

Tribromethanol was used in the treatment of ten cases of tetanus. It was necessary in severe cases to use doses of 0.1 cubic centimeter per kilogram of weight to control spasms completely from two to six hours and produce sufficient relaxation of the jaw. Four such doses may be given in twenty-four hours over a period of as much as eight days without ill effects.

Relaxing effects are noticed within ten minutes after administration. The only ill effects was the depression of respiration and cyanosis, which can be remedied by oxygen taken through the nose. Spasms were controlled so satisfactorily that the patient could be fed by stomach tube introduced by the nasal route.

Rectal irritation caused by repeated doses cleared up as the doses were reduced in size and frequency. It is not known how great is the danger of giving large and repeated doses of tribromethanol.

### DERMATOLOGY

By E. E. BROWN, M.D.  
Doctors Building, Nashville

Unsaturated Fatty Acids in Eczema: Obser on Acne Vulgaris, Psoriasis, Xanthoma Tuberosum, and Xanthoma Palperbrarum. Norman N. Epstein, M.D., and David Glick, Ph.D., San Francisco, *Archives of Dermatology and Syphilology*, March, 1937.

The total lipids, iodine absorption, and iodine number were measured on patients selected. Thirty-four with eczema, twenty-two with other cutaneous diseases, and eight normals were used and tests tabulated. They concluded that the administration of linseed oil to patients with eczema in practical quantities had no consistent effect in increasing the degree of unsaturation of the lipids of the blood during fasting, and no clinical improvement was observed as a result of this therapy. The iodine numbers of blood of normal persons and of patients with eczema, psoriasis, acne vulgaris, and xanthoma varied sufficiently so that no clinical significance could be attributed to these findings.

### PEDIATRICS

By JOHN M. LEE, M.D.  
Doctors Building, Nashville

Treatment of Meningococcic Meningitis with Meningococcus Antitoxin. Winston H. Tucker, M.D. Springfield, Illinois, *Illinois Medical Journal*.

In an epidemic of meningococcus meningitis in Springfield and vicinity in 1935, the first sixteen cases were treated with antimeningococcus serum intraspinally with ten deaths, or a mortality rate of 62.5 per cent.

Subsequently fifty-three cases were treated with meningococcus antitoxin intravenously and intraspinally with fifteen deaths, or a mortality rate of 28.3 per cent. In the survivors of this last group complications were surprisingly few. Intraspinally injections of twenty to thirty cubic centimeters of undiluted antitoxin were given in almost every case, and ninety cubic centimeters of antitoxin diluted with twice that volume of ten per cent dextrose solution were given intravenously slowly by gravity, the treatments being given daily.

The earlier the patient receives treatment, the better the prognosis. The author emphasizes the importance of testing all patients for sensitivity to horse serum before treatment, and gives a method of desensitizing those found sensitive.

In discussing this paper, Dr. A. L. Hoyne cited his observations on similar cases treated with antitoxin in Chicago hospitals. He found that in patients over twenty years of age the fatality rate mounts rapidly. It was found that by giving large doses of antitoxin or serum intravenously negative cultures from spinal fluid were obtained much

earlier than if serum or antitoxin were given intraspinally, recovery came sooner and complications were fewer.

During five months preceding this discussion Dr. Hoyne had treated all cases seen, more than 100, by intravenous injection only with a fatality rate of less than sixteen per cent. In forty-three patients twenty years of age or less treated by intravenous injections only, the fatality rate was less than three per cent. He stated that he rarely gave a patient less than 100,000 units, and some were given 300,000 or 400,000 units. Some children were given 300 cubic centimeters of antimeningococcus serum in one dose intravenously diluted in ten per cent glucose, to which five to ten minims of adrenalin were added; that was all the serum treatment the patient received and recovery was prompt.

### OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.  
Suite 316 Doctors Building, Nashville

A Statistical Study of the Treatment of Placenta Previa.  
Locke L. Mackenzie. *American Journal of Obstetrics and Gynecology*, 33: 577-586, April, 1937.

There has been a sharp controversy during recent years as to the proper treatment of placenta previa. Generally there are three points of view: the radical, so called, favoring delivery by Cesarean section; the conservative, favoring delivery from below; and the individualistic, favoring the best advised method in each case. There is no established method of treatment for placenta previa either in this country or abroad.

The type of placenta previa, the parity of the patient, the presentation, the general physical condition, the amount of hemorrhage, the period of gestation, the equipment available, and many other factors must be considered in studying this difference of opinion. The incidence is variously stated, but probably approaches one in each thousand deliveries, therefore any one operator is not likely to see a very large series in a lifetime, which again probably accounts for some difference in opinions.

The author presents the results in terms of maternal and fetal mortality of various forms of treatment in a series of 22,115 cases found in a study of the literature of the world for a ten-year period, 1924 to 1933.

One-fifth of the total series was delivered by Cesarean section, leaving four-fifths to be delivered from below. The maternal mortality after Cesarean section was 6.6 per cent, while after delivery from below was eight per cent. These figures approximate one another, but the reader must realize that their numerical expression represents a difference of over 300 fatal outcomes.

In central degrees of previa when delivery by abdominal section the maternal mortality is 9.4

per cent and the fetal mortality is 43.7 per cent. After delivery from below these figures rise to 16.5 per cent and 75.0 per cent, respectively. When the placenta is laterally inserted, Cesarean section provided a death rate to the mother of less than one per cent and a fetal mortality of 15.8 per cent, while other methods of delivery gave figures of 9.7 per cent for the mother and 55.1 per cent for the baby. In the marginal type of previa less than one per cent of the mothers and 28.6 per cent of the infants failed to survive after abdominal delivery, but 6.1 per cent of the mothers and 49.1 per cent of the babies after delivery from below. This broad study shows that placenta previa terminated by Cesarean section yields less risk for the mother and infant.

Clinical Classification of Cases of Carcinoma of Corpus Uteri. H. S. Crossen. *Journal of Obstetrics and Gynecology*, 33: 587-595, April, 1937.

Despite the difficulties, a satisfactory clinical classification of carcinoma of the corpus should be vigorously pushed, for it is absolutely necessary for evaluation of treatment and results. There must be an effort made toward a scale by which early cases may be differentiated from the late.

The author presents a definite complete clinical classification, grouping them into six stages, each stage representing the extent of involvement within fairly definite anatomic limits.

The six stages follow: I: Endometrium alone involved. II: Definite involvement of the muscular wall, not beyond its middle. III: Extension to the outer half of the uterine wall, not beyond the borders of the uterus. IV: Extension to the surrounding structures, but not beyond the removable ones. V: Extension to structures not advisable to remove, but when removal of the original tumor is still practicable. VI: There is such extensive involvement of surrounding structures that not even the main tumor mass can be safely removed.

Stages III, IV, V, and VI may ordinarily be recognized at operation, and Stages I, II, III, and IV may be recognized in the laboratory. The author discusses the treatment in each stage.

"We are engaged in the serious and difficult business of saving life, and for the solution of the intricate problems encountered, we need all the help we can secure by careful observation and accurate recording of findings in the various phases of these cases."

### OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
Doctors Building, Nashville

Cod-Liver Oil for Local Application in Ophthalmology.  
G. Possenti. *American Journal of Ophthalmology*, April, 1937.

Possenti employed cod-liver oil in strength from ten to fifty per cent in the form of an ointment

and applied directly to the eye in such conditions as asthenic corneal ulcer, phlyctenular keratitis, trachoma in the cicatricial stage, blepharitis, and xerosis. The ointment is well tolerated and does not exclude other forms of treatment. In experimental infection of rabbit cornea the fifty per cent pomade showed definitely antiseptic properties. The results are explained as being due to antiseptic action, increased supply of vitamin D, and stimulation of epithelial tissue.

The Conjunctival Manifestations of Measles. F. Caramazza, G. de Toni, and G. Puglisi-Duranti. *American Journal of Ophthalmology*, April, 1937.

During a measles epidemic the authors studied the conjunctival mucosa of forty-six children, directly and by means of the slit lamp. In eighty-three per cent subepithelial nodules were noted on the lower palpebral conjunctiva. They were few in number, oval in form, opal in color, with a surrounding red zone. They developed rapidly during the incubation period and faded within a few days. Only thirteen per cent of the children exposed to measles, but not developing the disease, showed these same nodules. It is suggested that the nodules represent a local reaction in subjects immune or refractory to the virus of measles.

### OTOLOGY, LARYNGOLOGY, RHINOLOGY

By W. W. POTTER, M.D.  
Medical Building, Knoxville

Blood Transfusions in Diseases of Ear, Nose, and Throat. John D. Shea, M.D. *Annals of Otolaryngology, and Laryngology*, March, 1937.

The author begins his article with the statement that blood transfusions, scientifically administered, are the nearest approach to a perfect tonic available in modern medicine. He stresses its importance as a therapeutic measure in the preoperative and postoperative management of promising cases.

Care should be exercised in selecting the donor and the time and frequency of its administration. Transfusion should be given by one who is especially trained in its administration.

In any case of sepsis, regardless of the blood picture, one or more transfusions are indicated when the patient is not doing well. It is indicated in diseases associated with the decrease in the number of blood platelets: idiopathic purpura hemorrhagica and symptomatic purpura hemorrhagica, hemophilia, and agranulocytosis.

Blood transfusions may be given by the modified blood method or the unmodified or whole blood method.

The author credits Jansky and Moss with classifying human blood into groups, but stresses the importance of depending upon the interpretation of the well-trained laboratory technician in selecting the donor.

"Reactions may be manifested by chill, rigor, fever, nausea, cough, or headache, and may terminate in death." Blood transfusion saves many human lives, but is not free from danger. The author reports a number of interesting cases.

### ROENTGENOLOGY

By FRANKLIN B. BOGART, M.D.  
Medical Arts Building, Chattanooga

The Treatment of Selected Cases of Chronic Catarrhal Deafness by X-rays. Frederick W. O'Brien. *Radiology*, Vol. 28, No. 1, January, 1937.

First report of use of X-ray or radium in this condition was by Joseph Beck in 1904. The effect on one case was not a success. In 1906 Dionidio reported a series of twenty cases in which favorable results were obtained in sixteen cases. Desjardins in 1930 critically reviewed fifty papers that had appeared on the subject and concluded that radiation exerts a favorable influence especially on tinnitus and may exert a favorable influence on hearing. He pointed out that widely varying and uncertain dosage might be responsible for a certain proportion of failures.

One hundred forty cases were included in the series here reported and were treated between 1929 and 1935. All of these were examined by a single otologist and a diagnosis made of chronic catarrhal or secretory deafness. No case of chronic suppurative middle ear disease or of otosclerosis was knowingly treated. No case was followed less than one year and most of them for three years. Each case was referred only after all the customary otological-therapeutic procedures had been practiced without avail.

Nine treatments to each ear at weekly intervals were found to be the optimum number. The factors used were 145 K.V.P. 5 ma, 0.25 mm. cu. and 1 mm. al filter; 50 cm. distance, 15 by 15 cm. field; 5 minutes time. This equals 90 r which was given to both ears at each sitting.

Of this group of 140 cases, seventy-three were improved as to hearing and tinnitus, sixty-five were unchanged, and two became worse following treatment. In the early part of the series some of the cases did not receive as many as nine treatments. It was among these cases who received less than nine treatments where the greatest number of failures occurred.

Twenty cases had tinnitus, and eighteen of these were in the improved group and they were completely relieved of tinnitus. The other two cases were the ones whose symptoms became worse during treatment.

Six of the patients were in the age group one to ten; fifteen in the age group ten to twenty; fifty-two in the age group twenty to thirty; thirty-three in the age group thirty to forty; twenty-one in the



age group forty to fifty; and thirteen in the age group over fifty years of age.

The author states that the exact mechanism by which the beneficial results are produced are not proven. He suggests that the well-known destructive effect of radiation on lymph adenoid tissue and its favorable effect on chronic inflammatory tissue as well as its known softening effect on fibrous tissue, such as postoperative adhesions, burns, and keloids, offer the most reasonable explanation of the favorable results obtained in these cases. If the deafness is due to small adhesions between the ossicles which bind them together and allow transmission of the vibrations of the drum or if they are caused by inflammatory exudates which gradually become adhesive in quality and attach the ossicles to each other and to the drum, the favorable action of radiation could be understood.

#### SUMMARY

1. Seventy-three cases of chronic catarrhal deafness of a group of 140 of varying degrees of deafness were improved by Roentgen ray treatment.

2. Eighteen patients with tinnitus in a group of twenty were cured.

3. What is believed to be an optimum cycle based on certain definite X-ray factors is described.

4. Sixty-five cases were unchanged and two became worse following X-ray treatment.

5. No case of nerve deafness or otosclerosis was treated.

#### ABSTRACTOR'S NOTE

This is an interesting report, since these cases so often fail to respond to the usual treatment, and since the doses of X-ray given are so small that no harmful results can possibly follow, it would seem that no valid excuse could be offered to giving these sufferers the benefit of a trial of radiation treatment.

### **SURGERY—GENERAL AND ABDOMINAL**

By **BATTLE MALONE, II, M.D.**  
1400 Monroe Avenue, Memphis

**Cancer of the Breast—Prognosis in Surgically Treated Cases.** Allen Graham, M.D., F.A.C.S., Cleveland, Ohio. *Surgery, Gynecology, and Obstetrics*, March, 1937.

Prognosticating the clinical end results in cases of breast cancer involves a number of variable factors. Individual constitutional resistance may account for the difference in the courses certain similar neoplasms may run in different patients. The prognosis is materially affected by the type of growth, the histological characteristics, the rapidity of growth, and the dissemination. While the histological grading of neoplasms is an index to the probable rapidity of progress of the growth, it is not the most important factor in determining

the curability or incurability of the cancer. The latter are more definitely determined by the degree of localization or dissemination of the growth.

The spread of cancer to any localities other than the most proximate lymph nodes renders the case incurable. Furthermore, the duration of life is determined not so much by the fact of dissemination as it is by the location of the metastatic deposits. Metastases to the osseous system may not be incompatible with prolonged life.

Whether surgery or irradiation or a combination of the two is employed, the fundamental principle in the treatment is that the tumor should be completely removed or destroyed while it is still confined to the breast. Whenever a lump is found in the breast, it should be proved without a doubt whether it is malignant or benign. This cannot be done by external examination. When a tumor is removed, the surgeon should always be prepared to do a radical mastectomy, should the frozen section show malignancy. In a small percentage of cases (Group I) in which the cancer is in the incipient stage and there is no gross tumor nodule, the author performs a simple mastectomy, removing the entire breast gland. If a gross cancer is present (Group II), the breast and axillary contents are removed with or without removal of the pectoral muscles. In Group III, in which cases are more advanced, the pectoral muscles are removed. In the last grouping (Group IV) the disease has reached the inoperable stage, and surgery is of little if of any value. No surgeon can cure a cancer when it has progressed beyond tissues he can remove.

To what radiation therapy, whether given before, after, or both before and after operation, will modify the prognosis will be determined by the future observations. In the author's experience it has not altered the end results when used in conjunction with surgery.

Tables are presented of the groups which are based on the extent of involvement at the time of operation. None of the Group I cases showed recurrence within five years. The alarming fact brought out was that 40.7 per cent of the traced patients were practically incurable (Group IV) when operated. Also in only 31.8 per cent (Group I and II) was the local condition such as to justify the hope of a high percentage of cures. In Group III only about one-third of the patients have the possibility of a cure. The relative malignancy of the groups is shown by graphs and tables, Group II showing five per cent of five-year recurrences, Group III forty-six per cent, and Group IV 93.6 per cent. In considering seven five-year periods there is always a rise in the curve representing patients alive five years or more after operation incidence of Group II patients is high.

## SYPHILOLOGY

By E. G. CLARK, M.D.

Tennessee Department of Public Health  
Nashville

Roentgen-Positive S ro-Negative Infantile Congenital Syphilis. Ingraham. *Am. J. Dis. of Children*, 50: 1444, 1935.

The author endeavored to determine the value of roentgenographic study of the bones as a diagnostic method for syphilis in early infancy in the offspring of partially treated mothers. The advanced bone changes which are present when the child is so severely diseased that it is stillborn or dies within the first few weeks of life are easily demonstrated roentgenographically, but the less marked osteochondritis which develops before the disease becomes clinically manifest is more difficult to recognize, especially in the offspring of partially treated mothers. Since the serologic reactions are of little diagnostic value at birth, the possibility of discovering syphilis in this group by means of roentgenography deserves investigation.

In 1934, not one of the 1,517 babies discharged alive from the maternity ward of the Philadelphia General Hospital showed any clinical evidence of congenital syphilis, although the incidence of syphilis among the pregnant women was 11.8 per cent, and the majority of them received insufficient prenatal antisyphilitic therapy. The Wassermann reaction was of value in diagnosing syphilis in not more than nine syphilitic children among 195 offspring of syphilitic mothers. However, with the aid of roentgenograms, forty additional cases were discovered, twenty-six (19.4 per cent) before the age of six days, and twenty-three cases (17.1 per cent) at ages from one to ten months. In all of these cases the initial skeletal changes had been evident roentgenographically before the blood serum gave a positive reaction.

The effect of prenatal treatment upon the early roentgenographic evidence is shown by the following findings: Of fifty-one cases in which the mothers were treated for more than two months, in five (9.8 per cent) syphilis was shown in the infants roentgenographically at six days; of sixty-nine cases in which the mothers were treated for a period of less than two months, in twenty-one (30.8 per cent) there was positive roentgenographic evidence of syphilis in the offspring. Cases in which the X-ray pictures revealed no positive signs at the age of six days were studied at ages from three to six months. Of thirty-six cases adequately followed, in twelve (33 per cent) the roentgenographic evidence subsequently became positive.

Serial roentgenograms of three children taken over a period of several months leave no reasonable doubt that the earlier bone changes seen a few days after birth are the precursors of the more advanced and easily recognized bone lesions which developed subsequently. The Wassermann

reaction which originally was negative became positive as the disease progressed, making a syphilitic etiology seem certain.

## UROLOGY

By TOM R. BARRY, M.D., F.A.C.S.

By G. A. WILLIAMSON, JR., M.D.  
Medical Building Knoxville

Testicular Swellings. Edward W. White, M.D., and Reuben B. Gaines, M.D. *Journal of American Medical Association*, Vol. 108, No. 15, April 10, 1937.

The clinical picture and correct management of testicular swelling and scrotal pathology is often baffling. The testicle itself may be involved or the condition may be present only in the structures immediately associated with the testicle. There may be present tumors or traumatism of the testicle, infectious orchitis, epididymitis, hydrocele, hematocele, infections, or tumors of the cord and tunica.

Patients presenting themselves with scrotal swellings should have a careful history and complete physical and urological examinations. Investigations for syphilis, tuberculosis, and remote foci of infections must not be omitted. The skin should be examined for evidence of traumatism. The cord should be investigated for thickness and smoothness. One should endeavor to determine if the pathology involved the testicle, epididymis, tunica, or cord. The presence of hydrocele, spermatocele, or hematocele must be ascertained.

When hydrocele is present, transillumination is possible; however, one should not overlook a tumor of the testicle associated with a hydrocele.

In case of hematocele, which sometimes is confused with tumor, there is usually a history of trauma. Transillumination is not possible. Testicular sensation is usually lost, and it is difficult to distinguish the testicle from the epididymis. The swelling is round, solid, and hard. The layers of the tunica cannot be felt free from the mass. Constitutional symptoms, such as pain, nausea, and vomiting, etc., are present at the time of onset, together with extravasation of blood and discoloration of the tissues. There is also sometimes a history of injury in cases of tumor of the testicle.

If the swelling is in the epididymis, this can usually be differentiated from the testicle by palpation. When the epididymis is involved, the prostate and seminal vesicles should be investigated for infection. There is occasionally present an abscess of the testicle, associated with an epididymitis. When a tuberculous epididymis is present, the cord is usually thickened and nodular. Tuberculosis of the testicle is a factor in only about ten per cent of orchitis cases.

Blood-borne infections of the testicle occasionally occur in such diseases as mumps, typhoid, pneumonia, and smallpox, and may occur in any condition where there is bacteria in the bloodstream.

Infectious orchitis and traumatism are more commonly seen in childhood. Testicular tumors are generally observed in adults.

Syphilis is more commonly found involving the testicle than the epididymis. The swelling may be ovoid, globular, or pear shaped, and is hard in consistency. The spermatic cord is rarely thickened. The layers of the tunica can usually be felt. Antisyphilitic treatment will cause the tumor to diminish in size in from four to eight weeks.

Testicular tumors are comparatively common. One hundred and fifty-five cases were reported from the Mayo Clinic between 1920 and 1929. They occur in every one to two thousand cases, according to reports from different clinics.

When infection and trauma can be ruled out, tumor is the most likely diagnosis. Ninety-six per cent of these tumors are malignant of more or less degree. The percentage of occurrence is slightly greater in undescended testicle. Tumors

of the testicle comprise 3.39 per cent of all tumors of the genitourinary tract and 2.09 per cent of all malignant tumors of the male.

The average age of occurrence is 31.7 years. They are more common during the active sexual age, but may be seen in the young and very old.

The most common symptom of tumor is a painless swelling with progressive enlargement. When metastasis occurs, there is loss of weight. The testicle is firm and smooth, or nodular. The epididymis is usually not involved, and the tunica not adhered. The cord may or may not be thickened. The biological test as described by Fergueson may help in the diagnosis and also in the prognosis while under treatment.

The treatment of these tumors consists of orchidectomy, irradiations with or without castration, or radical operation including the removal of the testicle and involved glands.

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### UNUSUAL TYPES OF INTRACRANIAL TUMORS — REPORTS OF FIVE CASES\*

COBB PILCHER, M.D., Nashville

THE GREAT majority of intracranial tumors fall into three great groups: the gliomas, arising from the brain itself; the fibroblastomas, arising from the covering membranes of the brain and cranial nerves; and the tumors arising from the pituitary body and its related structures. In Cushing's<sup>1</sup> series of over two thousand verified intracranial tumors, 88.1 per cent fell within one of these three groups. There are, however, numerous unusual or rare types of tumor, many of them benign, encapsulated, and capable of operative removal and cure.

In this paper, I wish to present five of these unusual cases.

*Case I. Right-sided headaches for ten years. Nocturnal convulsions for three years, tinnitus, dizziness, "dreamy spells" for three months. Removal of osteoma of right temporal bone. Recovery.*

Mrs. A. P. (V.U.H. No. 45711), a white housewife of forty-one, had been followed in the Vanderbilt Hospital Dispensary since October 23, 1925. She had suffered from moderately severe, infrequent "sick headaches" most of her life. At the age of fourteen, she had had a series of generalized nocturnal convulsions for about a year. Little could be learned of their exact nature. At the age of thirty, she had spent three months in the Davidson County Tu-

berculosis Hospital on account of a mild pulmonary tuberculosis, which was pronounced arrested on her discharge.

On her first visit to the dispensary, she complained of a new type of headache, confined to the right side of her head, often throbbing in type and sometimes associated with tingling in the right side of her face. She was an excitable and overanxious individual who also had numerous other vague complaints, mostly related to her chest. Physical examination revealed no cause for her symptoms. The lungs had apparently entirely healed. A roentgenogram made to show her sinuses, however, showed a small, nodular calcified mass in the outer portion of the middle fossa of the skull, seemingly arising from the petrous bone. This was confirmed by roentgenograms of the skull.



Fig. 1. Case I. Photograph of the bony tumor.

She was seen by various observers, none of whom believed that the intracranial mass was the cause of her symptoms, and she was followed at intervals largely with re-

\*Read before the Middle Tennessee Medical Association, Shelbyville, May 21, 22, 1936.

gard to her chest condition. The headaches continued, but did not incapacitate her, and she began to have occasional mild ringing in her right ear. On October 5, 1931, roentgenograms of the skull showed that the mass was definitely larger than before, and she was advised by Dr. T. D. McKinney to have it removed. She refused operation, however, and did not return until February 2, 1932. The previous night she had had a generalized convulsion characterized by loss of consciousness, biting of her tongue, turning of her head to the left and clonic spasm of all extremities.

She was admitted to the hospital on the medical service and after careful study, including normal findings in the cerebrospinal fluid, her physicians again felt that her symptoms were probably not related to the intracranial mass. During the next two years she had about twenty nocturnal convulsive seizures, the headaches and tinnitus continued without much change, and she stated that her memory for recent events was becoming poor. No neurological signs appeared.

Her pulmonary condition remained unchanged, but, when she became pregnant for the third time in ten years, it was thought wise to terminate the pregnancy by Cesarean section and to sterilize her, lest the burden of repeated pregnancies cause a flare-up in her tuberculosis. This was done by Dr. W. L. Williams on December 20, 1933. She made a satisfactory recovery and was again followed in the clinic.

I first saw her on February 23, 1935. At this time, she had begun to have occasional "dreamy state" attacks, in which she would suddenly go blank for a moment and have a feeling of being transported out of her body. These attacks were not accompanied, as they frequently are, by hallucinations of smell or taste. At this time, she had a left facial weakness, and her tongue protruded to the left. The tendon reflexes were uniformly hyperactive. There was no defect of speech, although she was left-handed. X-rays of the skull showed a further increase in the size of the bony mass within the skull.

She was again advised to have the tumor

removed, and went home to think it over, but it was not until October 18, 1935, that she returned for the operation.

*Operation, October 24, 1935.*—A large right temporal bone flap was turned down. The large, nodular, bony mass was growing from a broad base which was fortunately in the lower portion of the squamous, rather than the petrous, portion of the temporal bone. It had forced the temporal lobe of the brain upward until the Sylvian fissure lay halfway up the convexity of the hemisphere. The dura mater was so incorporated in the base of the tumor that it was necessary to approach it intradurally. By careful dissection, the tumor was finally freed from the brain, and it was possible to cut completely around the mass with an osteotome, thus removing the entire tumor and its base in the temporal bone in one mass.

She made a rapid recovery and was discharged from the hospital free of symptoms on the twelfth postoperative day. There were no further symptoms until April 4, 1936, when she had a single fleeting "dreamy spell." Except for this, there have been no symptoms until the present time. She is completely free of headache.

Pathologically, the tumor is a true osteoma and consists of slowly growing, apparently normal bone.

*Comment.*—There can be little doubt that the tumor was the cause of most of the patient's symptoms during the ten years prior to operation. Whether it was also related to the epileptiform seizures of her childhood cannot be stated. The case is an excellent illustration of a slowly growing, very benign lesion, involving a "silent" area of the brain and hence causing almost no localizing symptoms.

The next case is illustrative of another and very rare type of bony intracranial tumor.

*Case II. Severe, right-sided headaches for one year following blow on head. Essential hypertension. Removal of large intradural bony plaque on right. Recovery.*

Mrs. K. J. (V.U.H. No. 76661. Referred by Dr. C. F. Hartung, Jr., of Bridgeport, Alabama, and Dr. Albert Weinstein of

Nashville), a white housewife of thirty-nine, had had intermittent severe headaches most of her life, particularly at the time of her menstrual periods. She had always been "nervous" and intense and, for four years before admission, had been known to have periodic elevations of blood pressure, which sometimes rose as high as 250 millimeters systolic. She had always vomited with very little apparent provocation and had had four therapeutic abortions for the vomiting of pregnancy.

In 1930, she was struck in the head by a falling elevator gate without apparent significant effect. One year before admission, her head was struck on the right side in an automobile accident. Following this, she began to have much more severe and frequent headaches which seemed to begin over the right eye and extend over the top of her head to the right occipital region. It was observed that her "nervousness" gradually increased, and relatives believed she showed definite early personality changes characterized by absent-mindedness, irritability, and a sort of childishness of speech and manner. The headaches became so severe that narcotics were required for relief.

On admission, February 13, 1936, she was found to be jumpy, excitable, and suffering with severe pain in the right side of the head. The head revealed nothing abnormal. The eye grounds were normal. The general and neurological examinations were entirely negative except that the blood pressure varied on several examinations from 154/94 to 190/115. The urine and blood were normal, the Wassermann negative. The spinal fluid was under a pressure of 260 millimeters of water, but was otherwise normal. Roentgenograms of the skull showed a large, irregular, fluffy-looking area of calcification extending from the mid-line out over the right hemisphere. Whether it was a growth from the inner table of the skull or lay deeper in could not be determined. The blood calcium and phosphorus were found to be normal.

*First operation, February 17, 1936.*—It seemed wise to first determine the nature and depth of the intracranial calcification. Accordingly, a small trephine opening was

made in the right frontal region. The inner table was normal in appearance, but *within the dura* was a solid, bony mass which obviously would require an extensive craniotomy for its removal.

*Second operation, February 19, 1936.*—Under avertin-novocain anesthesia a large, right-sided bone flap, extending across the mid-line, was turned down. The inner surface of the dura was adherent to the large, irregular, underlying bony mass, but it was finally dissected free up to the superior longitudinal sinus. The mass could then be seen to be a wide, flat plaque of bone, thickest next to the sinus and growing thinner as it extended farther laterally. At its widest point, it was about four centimeters in width and its length was about fifteen centimeters. Several smaller separate peripheral plaques were also present. The bony masses were lightly adherent to the cortex, but, by careful dissection, could be separated and elevated enough to allow their removal bit by bit with the rongeur. (Fig. 2.) The final narrow strip



Fig. 2. Case II. The bony mass removed piecemeal.

along the sinus could fortunately be stripped away without tearing the sinus wall. A small amount of similar bone could be palpated through the dura on the left side, but it was not thought wise to perform the extensive operation which would have been necessary for its removal.



The wound healed rapidly, and, except for troublesome vomiting for a few days, the patient made an uneventful recovery. She has been entirely free of headache until the present time. It has also been gratifying to observe that her systolic blood pressure now remains at 140 millimeters. A recent letter from the patient states, "I still feel grand and am strong. Weigh 141 now. I surely do feel like a different person."

Microscopic examination of the tumor shows it to be composed of true bone with normal trabeculation and Haversian canals.

*Comment.*—The nature of this most unusual lesion presents food for speculation. It is not unusual to encounter tiny calcified plaques along the longitudinal sinus, and these are believed to arise from the arachnoidal villi. Occasionally, they are large enough and numerous enough to be visible in the roentgenograms. But I have never seen so large a mass of intradural calcification, and I can find no such lesion reported in the literature. The role of injury in this case is a questionable one. If the lesion were a calcified hematoma, one would not expect it to be composed of bone. I am inclined to believe that the injury simply exacerbated the symptoms due to a lesion which had been slowly, progressively growing for many years.

It is of interest that in both Case I and Case II the headaches were unilateral, a fact which led to the diagnosis of migraine by several physicians in each case.

*Case III. Blindness and headache for two months following a fall. Cystic tumor located in left occipital lobe and emptied by needle puncture. Exploration and partial removal of papilloma of choroid plexus. Re-exploration and radical extirpation of tumor. Two subsequent operations for removal of recurrent tumors in a period of fifteen months. Deep X-ray therapy. Symptom free at present.*

F. S. (V.U.H. No. 60718. Referred by Dr. F. G. Riley, Meridian, Mississippi, and Dr. C. M. Gully, DeKalb, Mississippi, was first seen on January 2, 1934, at the age of six. Two months before, when apparently perfectly well, he fell from a porch. It was assumed that he had struck his head,

for he was confused for a few minutes and soon said that he could not see very well. During the next few days, he became completely blind and his right eye was turned in. The eye gradually returned to its normal position, but vision did not return, and he began to have severe headaches. There was no vomiting, convulsions, or weakness. He was drowsy, but could always be easily aroused. His parents noticed that his neck was stiff.

On examination, he was found to be completely blind, with high choking of the optic discs and far-advanced secondary optic atrophy. His neck was moderately stiff. The other cranial nerves were not abnormal, but there was slight weakness of the right arm and leg, and these extremities were somewhat awkward in their movements. He was quite thin and in poor general condition.

Laboratory findings were normal. Roentgenograms showed evidence of high intracranial pressure, but no localizing signs.

It was certain that the child had a brain tumor, but its location was not definite. I felt that it was probably cerebellar on account of the ataxia and the high incidence of cerebellar tumors in children. It seemed wise to perform a ventricular estimation, for, if the lateral ventricles were dilated, the tumor would certainly be in the posterior fossa.

*First operation, January 4, 1934.*—Through a small trephine opening, a ventricular needle was inserted into the left occipital lobe. Instead of entering the ventricle, however, at a depth of two centimeters, it entered a huge cyst from which 100 cubic centimeters of yellow fluid were evacuated.

He was greatly improved by the relief of pressure. A respiratory infection delayed the exploration and kept him from recovering his strength. It was necessary to again evacuate the cyst on several occasions. Finally, although his condition was poor, I felt it unwise to delay further.

*Second operation, January 14, 1934.*—An occipital flap was turned down on the left side. There was some troublesome bleeding from veins entering the lateral sinus, but

this was controlled with silver clips and electrocoagulation. The cortex of the brain appeared normal except for flattening of the convolutions. An incision five centimeters in length was made in the brain, and at a depth of three centimeters it entered the cyst, in which lay a huge mass of soft, purplish-red tumor tissue. In the tumor were many other smaller cysts. It was apparent that the tumor lay in and almost filled the greatly distended ventricle, but it showed signs of infiltration only on its lateral and posterior aspects. I set about its removal, but it was at once apparent that the child's condition would not tolerate so radical a procedure at this time. It was necessary to give him a small transfusion, and I had to be content with removing enough of the tumor to temporarily alleviate the pressure.

The patient made a rapid postoperative recovery. There was no improvement in his vision, but all other symptoms disappeared. He was allowed to go home for a short time to recover strength for a radical removal of the tumor, which microscopic sections showed to be a papilloma arising from the choroid plexus of the ventricle. He returned in much improved condition.

*Third operation, April 26, 1934.*—The old flap was reopened, and the tumor exposed by an even wider incision in the cortex. By gentle dissection with pledgets of cotton and finally with the finger, the entire huge mass was finally removed. (Fig. 3.) As far as

could be seen, no tumor tissue was left behind. Bleeding was easily controlled and the wound closed tightly.

He again recovered rapidly and was sent home on the twelfth postoperative day. His parents reported on him faithfully. He was put in a blind school and was entirely free of symptoms until ten months after the operation. At that time, he suddenly began to have headaches and vomiting. He was brought back to Nashville. It was apparent that a recurrence of the tumor had taken place.

*Fourth operation, February 25, 1935.*—Once again a very radical removal of the tumor, which was as large as before, was performed.

Microscopic study showed the same type of tumor as before, except that it was more cellular and there was more evidence of rapid growth.

His recovery was good, but once again, this time after only three months, he returned with signs of recurrence. I had little hope of accomplishing anything permanent, but resolved to give him one more chance by removing most of the tumor and following this with very intensive X-ray therapy.

*Fifth operation, July 29, 1935.*—When the old flap was reopened, the cortex over the tumor was found to be only a few millimeters in thickness. An amputation of the entire occipital lobe and a large portion of the parietal lobe was done, including an enormous mass of tumor.

As soon as the wound was healed, the child was given deep X-ray therapy in large divided doses by Dr. C. C. McClure. Except for the blindness, he has remained free of symptoms until the present time, ten months after the last operation. He has just returned for another course of treatment.

*Comment.*—The case presents several interesting features. Tumors arising within the lateral ventricles can attain a relatively enormous size by filling up and gradually distending the ventricle before they begin to cause symptoms. In this case, although the tumor must have been present much longer, symptoms did not appear until two

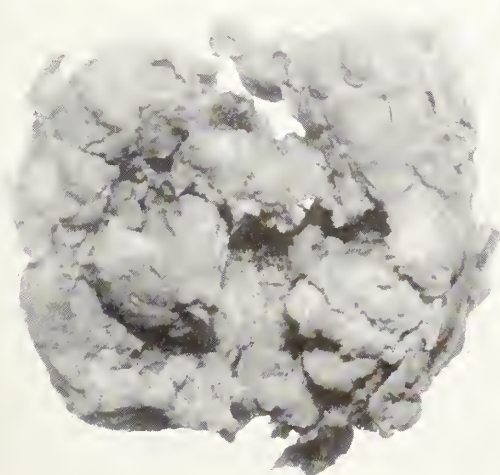


Fig. 3. Case III. Tumor removed at third operation.



months before the first operation, at which time the tumor weighed 51.5 grams and was about the size of a small orange, in addition to the space occupied by 100 cubic centimeters of cystic fluid.

Another significant and frequently observed fact was that the first symptoms were discovered after a fall. It is apparent that the fall was the *result and not the cause* of the child's blindness.

Papillomas are true epithelial neoplasms arising from and closely simulating the normal structure of the choroid plexus. They are very unusual and they may vary greatly in their rapidity of growth. Successful treatment depends on getting them sufficiently early to be able to excise their points of attachment before extensive infiltration has occurred. The results of radiation have been gratifying in this case so far, but it is too early to be certain of its value.

This case also illustrates how a whole lobe of the brain may be extirpated without causing significant impairment of neurological function. This child's vision was already permanently destroyed, so I had no hesitation in amputating the occipital lobe. Similarly, the anterior portions of either of the frontal lobes and of the right temporal lobe can be removed without recognizable harmful effects.

*Case IV. Left-sided Jacksonian convulsions for twelve years. Left hemiparesis and hemi-hypesthesia. History of treated syphilis. Removal of cystic spongioblastoma polare. Complete recovery.*

Mrs. J. C. (V.U.H. No. 67303. Referred by Dr. W. K. Edwards, Centerville, Tennessee), a white housewife of thirty-two, was admitted to the hospital November 1, 1934. Thirteen years previously, she had noticed occasional tingling of the left leg and arm. Soon afterward she became pregnant and during labor had several generalized convulsions which were ascribed to the toxemia of pregnancy. The delivery was normal and the child has always been healthy. Three weeks after delivery, she began to have frequent left-sided convulsions, always beginning in the leg. She lost consciousness with some of them, while

others were very light and brief. She had numbness and tingling of the left arm and leg for several hours following each attack. She was found to have a positive Wassermann reaction, and both she and her husband were given intensive antiluetic treatment by their physician for nearly a year. However, the convulsions continued at irregular intervals for seven years, improved somewhat by luminal which she took faithfully.

After seven years, she was free of convulsions and all other symptoms for four years. At the end of that time, one year before I saw her, the convulsions returned as before and became progressively more frequent and severe. The numbness and tingling on the left were more marked and she noticed a progressively increasing weakness of the left leg and later of the left arm. She began to have occasional severe headaches, sometimes accompanied by vomiting. There were no visual disturbances and no mental impairment.

On examination, she was found to be a very intelligent, alert young woman. Her head showed no deformity or tenderness. The eye grounds were normal. There was weakness of the left side of the face, but the other cranial nerves were unimpaired. There was marked weakness of the left leg and moderate weakness of the left arm. Sensation was slightly diminished in both the left arm and left leg. Oppenheim's and Babinski's signs were positive on the left, and there was a well-sustained left ankle clonus. The general physical examination was negative.

Laboratory examinations were normal throughout. The blood and spinal fluid Wassermann reactions were negative. Spinal fluid pressure was 120 millimeters and the cell count was two per cubic millimeter. Roentgenograms of the skull were negative.

*Operation, November 5, 1934.*—A left fronto-parietal bone flap was turned down and, when the dura was opened, there was seen at once the discolored, soft area denoting a subcortical tumor just posterior to the leg area of the motor cortex. The cortex was incised, opening a large cyst con-



taining yellow fluid which coagulated on standing. Within the cyst was a large mural nodule of solid tumor three centimeters in diameter. This was attached on only one side and it was easy to remove it completely with a wide margin around its base.

She made an unusually rapid recovery and, within three months after operation, was actually able to play the piano with her formerly almost paralyzed left hand. There was no demonstrable residual weakness in the leg. She has had no further symptoms of any kind in the year and a half since operation.

Microscopic study of the tumor proved it to be an unusual but benign type called spongioblastoma polare (Pilcher<sup>2</sup>).

*Comment.*—This case is of interest not only because of the unusual tumor type, but because of the very long duration of symptoms, the complete remission of symptoms for four years, and the association of syphilis. Not many years ago, it was customary practice to give every patient suspected of having a brain tumor a course of anti-luetic treatment to make certain that the symptoms were not due to syphilis. Fortunately, we now know better how to recognize brain tumors and avoid this unnecessary delay and, further, we recognize that, as in this case, a syphilitic patient may perfectly well have a brain tumor as well. It is also true that syphilitic granulomas (gummas) of the brain are very resistant to treatment and often require surgical removal themselves.

Although the tumor is a glioma, it is presented here as an unusual type and because of the extraordinary clinical features.

*Case V. Failing vision in right eye for three years. Tiny spot of calcification in right suprasellar region. Exploration, revealing large aneurysm of right internal carotid. Subsequent spontaneous rupture of aneurysm and death.*

Mrs. H. N. (V.U.H. No. 56865. Referred by Dr. Kate Zerfoss, Nashville), a white woman of forty-one, was first seen October 4, 1933. Two years before the vision in her right eye had begun to fail and had become

progressively poorer until there was little or no useful vision left. The left eye was unaffected. She had occasional "sick headaches" in the frontal region and was quite "nervous." Her menstrual periods had become irregular and scanty, but there had been no other symptoms suggesting pituitary disorder. She had had no weakness, convulsions, dizziness, or staggering. Her memory and disposition were unchanged. There was no history of association with lead, arsenic, or other poison.

The general physical examination was negative. There was no evidence of acromegaly or hypopituitarism. The eyes appeared normal, but the visual acuity on the right was only 20/200, while that on the left was 20/20. Visual fields (Dr. Zerfoss) showed complete blindness in the nasal half of the right field with marked constriction of the temporal field. The left field was normal. The right optic disc was very pale, the left normal. The neurological examination revealed nothing abnormal except that the left knee jerk was slightly more active than the right. Nothing abnormal was seen in roentgenograms of the skull. The sella turcica appeared normal.

It was felt that the possibility of a tumor compressing the right optic nerve could not be overlooked, but that the evidence was insufficient to justify exploration at this time. She was seen at regular intervals. During the next five months the vision in the right eye slowly diminished until she could barely count fingers at twelve inches and the right visual field became more distorted and finally impossible to determine. A slight right external rectus weakness appeared. On December 13, 1933, it was first observed that the nasal margin of the left optic disc was slightly blurred, and during the succeeding three months, this condition gradually developed into definite papilledema. March 27 the patient had begun to notice blurring of vision on the left, but the acuity and visual field were still normal. On April 4, roentgenograms showed a tiny fleck of calcification lying just anterior, above, and to the right of the sella turcica.

This was considered conclusive evidence

of the existence of a tumor, and the patient was admitted to the hospital for operation. It was thought that the tumor might be a meningioma, a suprasellar cyst, or an aneurysm.

*Operation, April 20, 1934.*—A right frontal flap was turned down and the frontal lobe of the brain elevated, revealing a large, smooth reddish purple mass lying immediately behind the orbit. The optic nerve was stretched and flattened into a paper-thin ribbon on its lateral surface. The mass was fluctuant, but did not pulsate more than the brain itself. A very small hypodermic needle was inserted into it and elicited bright red blood, which pulsated into the syringe. Bleeding from the needle hole was controlled by a moment's pressure. It was apparent that the tumor was an aneurysm, probably of the internal carotid artery, and that its removal was impossible.

After operation, the patient's condition was excellent. The following morning, she felt well, ate a good breakfast, and had no apparent ill effects from the operation. The wound was dressed and the silk skin stitches and small gutta-percha drain removed as usual. Suddenly, at 12:30 P.M., there appeared a heavy bloody stain on the dressing, and the patient lapsed rapidly into coma. I was fortunately close by, but she had ceased to breathe by the time I got to her. The pulse was strong, however, and artificial respiration was begun at once. Hastily putting on gloves, I reopened the wound and evacuated a huge clot. The aneurysm had ruptured and was pouring forth a torrent of blood. This was temporarily controlled by packing, and she was taken to the operating room. When a good exposure could be obtained, a large rent was seen in the aneurysm. This was plugged with a piece of temporal muscle and presently all bleeding ceased. She was given a transfusion and the wound closed as before.

She responded surprisingly well after this arduous procedure. That evening she was awake and talking. There was a left hemiplegia, doubtless due partly to the compression of the right hemisphere and partly to obstruction of its blood supply.

On the following morning at 6:00 A.M. her blood pressure rose from 135 millimeters to 155 millimeters and she became quite drowsy. An hour later, the blood pressure was 190 and she was in a deep stupor. The aneurysm had evidently begun to bleed again, but I did not think her condition would permit reopening the wound again and hoped that the bleeding would stop spontaneously. She rallied for a time and held her own most of the day, but grew worse again. Spinal puncture failed to help and I finally opened the wound again, removed a large clot, and controlled the bleeding by packing. But it was to no avail, and she died at 8:00 P.M.

An autopsy was performed. The aneurysm was found to have arisen from the internal carotid artery. (Fig. 4.) There was no clue as to its etiology.



Fig. 4. Case V. Drawing of the brain made at autopsy. Note the tear in the aneurysm and the flattened, displaced optic nerves.

*Comment.*—Intracranial aneurysms are very rare. They are rarely associated with syphilis, but seem to be due to some inherent defect in the arterial wall. An interesting feature of this case was the development of the "Foster Kennedy syndrome," consisting of optic atrophy on the side of a frontal lobe tumor and choked disc on the

opposite side. The importance of the minute plaque of calcification was enormous in this case on account of the lack of other positive evidence.

#### CONCLUSION

Many brain tumors present extremely discouraging problems. The more malignant types of infiltrating gliomas are hopeless from the beginning, and the most we can accomplish with them is the temporary alleviation of intracranial pressure. However, several of these cases illustrate that many other brain tumors are readily amenable to surgical treatment with an excellent prospect of complete and permanent cure.

A significant feature of these cases also

is the relatively small amount of conclusive clinical evidence present in most of them. They serve as a pointed reminder that, whenever faced with obscure headache or visual disturbance, one should keep the possibility of brain tumor in mind. Only in this way can the neurosurgeon get them early enough to do the patient and the doctor justice.

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## AN ABSTRACT OF THE LITERATURE ON PRONTOSIL\*

EUGENE ROSAMOND, A.B., M.D., Memphis

A YELLOWISH red dye preparation, developed by the I. G. Dye Industry and at first named Streptozone, is now on the market under the name of prontosil, and is supplied in five cubic centimeters and ten cubic centimeters ampules and bottles of fifty cubic centimeters of a two and five-tenths per cent aqueous solution marketed by the Winthrop Chemical Company.

Early in 1935 Domagk in Germany announced a startling chemotherapeutic success with the administration of this substance to mice inoculated with hemolytic streptococci from a human source. Cultures injected into the peritoneum of untreated controls killed the animals in twenty-four to forty-eight hours. With doses of one-tenth to one-fiftieth of the tolerated dose of prontosil most of the treated animals recovered in from three to five days, and after recovery no pathologic changes were found in the tissues, such as were present in the controls.

Of course, these findings immediately stimulated great interest, and numerous investigators began similar experiments not only on animals, but also on human infections. These clinical reports were unanimously favorable.

To quote Colebrook, Leonard, and Kenny, Meave, in the *Lancet* of June 6, 1936, "These clinical reports are unanimously favorable, but their evidential value must be regarded as small since, in most cases, the recovery of patients is unhesitatingly ascribed to the treatments, and too little allowance is made for the tendency to spontaneous cure of these infections. The papers do serve, however, to indicate that the drug is well tolerated by the human subject and what dosage has given apparently good results."

These writers then proceed to treat some

cases of their own and conclude, "While, therefore, there would appear to have been a very considerable reduction of the death rate among the prontosil-treated cases, it would be unwise to assume on the basis of so small a series that the reductions will be maintained. Nevertheless, the very low death rate, taken together with the spectacular remission of fever and symptoms observed in so many of the cases, does suggest that the drug has exerted a beneficial effect."

Other writers are not so skeptical. Otto Scheurer (Medizinische Klinik, May 29, 1936) says, "The most striking results were obtained in erysipelas. It was most impressive to see the temperature drop after the first intravenous injection or after the third tablet. In one or two days, patients whose temperature had been 105.8 Fahrenheit were practically always afebrile. The local process became stationary with the onset of the treatment and regressed after the defervescence. The general condition improved rapidly. Judging from his results, of course, only in the severe septic cases, the writer thinks prontosil is a specific chemotherapeutic against erysipelas." The same writer treated suppurative anginas with tablets by mouth and reports: "The temperature regularly dropped to normal within four to forty-eight hours, while the swelling, redness, and coatedness of the tonsils disappeared." "In a case of septic endocarditis, having lingered for one and a half years in the clinic, with practically constant septic temperatures and various pulmonary infarcts, treatment with prontosil brought on rapid improvement and eventual healing. It should be stressed, however, that several cases of sepsis (all of a streptococcal nature) were refractory to the most energetic treatment with prontosil."

The same writer reports good results in scarlet fever, in pneumonias with bacterio-

\*Read before the forty-sixth annual session of the West Tennessee Medical and Surgical Association, Paris, Tennessee, May 20, 1937.

logic findings of streptococci, and refractory to the customary therapy.

Lothar Ley (Munchener Medizinische Wochen Schrift, July 3, 1936) reports seventy-nine cases of puerperal fever treated with prontosil. The mode of administration was intravenous, intramuscular, per os, and rectal. In a total of over two hundred injections this writer has never observed a local injury, either in the muscle or in the vein used for several successive injections nor was the circulation affected in any way. In several cases he gave one or two five cubic centimeters ampules twice a day and three to four tablets. This was given until the fever dropped and for one to three days afterward. He reports, "And even when the fever had already lasted several days, the effect was often stunning. Prontosil seems to be superior to other chemotherapeutic agents with the same indications, although it is not a 'therapia sterilisans magna,' and there will always be cases, which resist, as they resist any other treatment." He reports four failures in the seventy-nine cases of puerperal sepsis.

W. Kramer (Munchen. Med. Wchuschr., April 10, 1935) treated twenty-three cases of erysipelas with prontosil with defervescence on the second or third day in most cases and with a total failure of the remedy in no case. He concludes, "The author considers prontosil the best chemotherapeutic remedy against erysipelas at the present time. In reliability and harmlessness it is far superior to any other remedy on the market for the treatment of erysipelas." This author also mentions the favorable effect of prontosil in tissue infiltrations with abscesses.

According to the work of Weese and Hect, prontosil is pharmacologically an extraordinarily negative compound. No change in the blood pressure or heart function could be demonstrated after the rapid intravenous injection of ten Mg. Kg. body weight. Also the smooth muscle of the uterus and of the large and small intestine did not respond to prontosil, and their physiological functions were unaffected. No accumulation of the dye in any partic-

ular organs or cells has been found. It is rapidly excreted by the urine, giving it a yellowish red color within thirty minutes after its administration by mouth. However, no albuminous casts or white blood cells are found in the urine. The dye penetrates into all the tissues, which probably explains its potent action on streptococci localized in the most varied situations in the body.

How it acts is not yet known. It acts only in the living body. It has poor prophylactic effect. It seems that virulent strains of streptococci have some reducing action on the dye which may explain its therapeutic effect.

H. Horlein (Proceedings of the Royal Society of Medicine, February, 1936) says, "The effect of prontosil may be convincingly studied by smears taken from the peritoneal cavity of infected animals. In the control animals large numbers of cocci, together with degenerating cells, damaged while blood corpuscles or their fragments, are found from twenty-four to forty-eight hours after infection. On the other hand, in animals successfully treated with prontosil no cocci and no damaged or disintegrating cells are found, but only a few leucocytes, monocytes, or lymphocytes in good condition." He concludes his paper after a recital of experiments with a more soluble prontosil-S. "If the impression given by this paper is that further advances are eminently possible in the chemotherapeutics of protozoal diseases, and that a breach has been created in the ramparts of bacterial diseases, then the author may consider his task fulfilled. Further, the ideal action of neosalvarsan on the contagious bronchopneumonia of horses shows that chemistry need not lay down its weapons even in the case of the ultramicroscopic viruses."

Recent chemical and biologic studies have shown that the azo group could be eliminated from the original azobenzene sulphonamide (prontosil) with no loss of anti-streptococcic activity. This has resulted in the compound para-aminobenzene sulphonamide—a colorless substance which is rapidly absorbed and well tolerated by mouth.

It is marketed under the name prontylin and is supplied by Winthrop Chemical Company in five and seven and a half grain tablets and in one ounce bottles of the repurified powder. It is only slightly soluble in water, but is soluble in boiling water, and a solution for injection can be made in the strength of eight-tenths per cent. Abbott supplies this product under the trade name sulfamidyl.

Long and Bliss (*Journal A. M. A.*, January 2, 1937) were the first to undertake the study of prontylin, or as you will find it in the literature, para-aminobenzene sulphonamide or the name sulfanilamide as recognized by the council on drugs. They conclude the drug inhibits the growth of the streptococcus and also injures it so that phagocytosis is markedly increased. They feel that since the drug is absorbed very rapidly it is doubtful whether any advantage is secured by intravenous injection. The intravenous injection of prontosil solution frequently resulted in nausea, vomiting, and immediate bowel movement. Following subcutaneous injection, the dye appears in the urine in fifteen minutes. Saline laxatives are prohibited during the administration of prontosil, and none of their patients developed sulfemoglobinemia. Reduction of the hemoglobin is possible in the presence of these laxatives. The only tonic manifestation was that of fever, which lasted twelve hours.

In the February issue of *Annals of Internal Medicine*, Arnold reports the use of para-aminobenzene sulphonamide at the University of Maryland Hospital in a case of hemolytic streptococcic meningitis because of the striking therapeutic results. Two hundred cubic centimeters of the drug in an eight-tenths per cent solution was

given by subcutaneous injection and twenty cubic centimeters intraspinally.

In April 24, 1937, *Journal A. M. A.*, Schwentker, Gelman, and Long report the use of prontylin in ten cases of meningococcic meningitis. The drug was used intraspinally and subcutaneously with "a response to treatment that was good and that seemed quite comparable to that caused by the specific antiserum." "One definite value of sulfanilamide over antimeningococcus serum is the absence of any irritative effect due to foreign protein."

Editorially, the *Journal of A. M. A.* (January 2, 1937) comments: "The studies thus far reported abroad on the use of these dyes in the treatment of streptococcic infections are now apparently substantiated to a considerable extent by subsequent investigations. The clinical observations reported present the usual optimism, but there must be adequate clinical controls. Much painstaking effort is necessary before the use of such dyes can be placed on a completely scientific basis. It may be hoped, however, that further investigations will disclose a definite group of disorders characterized by high virulence and mortality which can be materially helped by appropriate chemotherapy."

Discombe (in *Lancet*, March, 1937) reports the complication of sulfhemoglobine-mia in six of seven patients receiving prontylin. However, four of the seven patients had been given frequent doses of magnesium sulphate—one other had two doses, and the sixth had magnesium sulphate dressings on a gangrenous area.

It should be borne in mind that neither magnesium sulphate nor sodium sulphate or other purgative should be given when administering prontosil or prontylin.



## ROENTGEN THERAPY OF MALIGNANCY OF THE HEAD AND NECK\*

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**D**URING the past five years there has been a very marked change in the method of treating malignant disease by radiation. This change has been effected for two reasons: first, by reason of the fact that the old methods were not curing a sufficient number of cases; and, second, that the normal tissues will tolerate a large total dosage, if given in certain fashions to be described later.

Unfortunately, in the past the treatment of malignancy has resulted in a relatively small percentage of permanent cures, varying, of course, with the character, location, extent, and duration of the disease. This applies with equal strength to both surgery and radiation, or a combination of the two. Realizing the existence of the situation, the surgeons and the radiologists have given, and are giving, much thought to it. Surgery has reached a very high level of technical excellence and leaves little to be desired when malignancy is confined to one locality or to an organ where complete removal is possible. Cancer, however, in only relatively few instances can be considered as purely a local process, on account of its early tendency to travel outward through the lymphatics and the blood stream. The field of surgery in the eradication of cancer is, therefore, rather sharply circumscribed with relatively little more to be hoped for in the future, since it has reached such a high technical level.

Radiation therapy of disease is relatively in its infancy, when one remembers that the Roentgen ray was discovered only forty-two years ago, and radium thirty-nine years ago, while modern surgery has been practiced since the days of Lister. Naturally, therefore, radiotherapy has not been developed to its highest degree in this short span

of years, and we are constantly learning better methods of application. Up until the past few years, radiation therapists have been confronted with the great possibility of permanent skin and tissue damage, if they delivered through the skin to a deep-seated lesion a dose sufficient to cure it. The skin, therefore, remained as an impenetrable barrier in our attack on such lesions. Fortunately, it was discovered by Regaud and others that malignant tissue was more susceptible to fractional doses of radiation than to single massive doses. An important corollary to this, worked out by Coutard at the Curie Institute in Paris, is that *normal* tissues showed much less permanent injury by fractional doses than by massive doses. Thus a different chapter in cancer therapy was opened, and is by no means finished as yet.

Coutard's classical work on malignancies of the head and neck has initiated an entirely new method of approach to the treatment of cancer. This worker, appalled at the hopeless condition of so many such cases presenting themselves at the Curie Institute, set about to devise an additional method of treatment. He took patients who were absolutely helpless, either from the standpoint of surgery or radium therapy, and proceeded to work out a scheme of treatment which resulted in from twenty-five to thirty-two per cent five-year cures. Instead of giving massive single doses of X-ray, Coutard gave treatments twice daily, heavily filtered, over a period up to forty days. There were marked normal tissue changes, which it may be well to describe. In about fourteen days, the mucosa of the mouth and pharynx in the area treated began to ulcerate, and the entire mucosa sloughed off. In about fourteen days more, this reaction subsided, and the tissues returned to normal. About this time the skin showed a marked reaction, blebs and blisters developed, and

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finally the deeper layers of the skin were laid bare, leaving weeping surface. This healed in by epithelization from the edges and in several weeks was completely covered, and never broke down subsequently. As stated above, Coutard by this method was able to salvage twenty-five to thirty-two per cent of these absolutely hopeless cases. All of us who have been using his technique have had the same experience.

One of the authors (V. W. A.) had the privilege of hearing Coutard present his work at a meeting of the American Roentgen Ray Society. After the close of the talk, several men who represented the most advanced centers of radiation therapy in this country gathered together informally in one of these "upper chamber" post-session gatherings so familiar to all of us. It was the consensus of opinion that Coutard's results were far superior to anything hitherto reported, but that the drastic method of treatment, while workable in Europe, would not be tolerated in the United States. Almost everyone felt that each case so treated would probably be a potential malpractice suit, particularly in view of the fact that the courts had so frequently held that ill effects following radiation therapy were ipso facto proof of malpractice. We returned to our respective institutions and informed our colleagues of Coutard's results, but let the matter rest there.

During the following year, Dr. Fletcher Woodward of the Ear, Nose, and Throat Service came in with a patient who was hopeless from the surgical standpoint. Dr. Woodward had explained the prognosis to the patient, who was a very sensible man, and he had then thought of the Coutard method of treatment as a last resort. The patient was talked to very frankly, all of the harrowing details of the treatment being stressed in detail. In truth, the hardships of the treatment were really overemphasized, since there was a lingering fear in our minds that he *might* consider such therapy. The patient then asked what would happen if he were not treated in this way and the reply was, "Certain death." Much to our surprise he said, "Treat me,"

and we did. There were as many sleepless nights for those responsible for the treatment as there were for the patient, particularly as the reaction reached its height, for there was nightly the picture of a courtroom scene. The case history is presented:

G. C. C. White male, age sixty-three. Sore throat eight months prior to admission, with slight voice change past two months and twenty pounds loss in weight. Had some "tightening" in throat. Biopsy: Carcinoma, larynx, grade III, April 13, 1933. Tracheotomy, cautery, removal of laryngeal carcinoma, and implantation of four needles of one and one-half millicuries each. Starting April 21, 1933, received a total of 3,000 r to each side of neck through one-half cu plus three al over twenty days. Skin desquamated and came off completely, but healed well, and since then patient has been in good condition with no sign of recurrence.

This result gave us a little more confidence, and since that time we have treated forty-five cases of malignancy of the head and neck grouped as follows:

Larynx .....	8
Tonsil .....	3
Parotid .....	7
Antrum .....	9
Lymphosarcoma, nasopharynx .....	4
Gliosarcoma .....	1
Melanosarcoma .....	1
Buccal mucosa .....	4
Other types .....	8

It may be well to consider each group separately, as each group has many features differing from the others.

*Tumors of the Antrum.*—Malignancy of the antrum is not rare, but is usually fairly well developed before the diagnosis is made. Carcinoma is the most frequent tumor and is of two types, transitional and epidermoid. The prognosis is quite different in the two types. In transitional carcinoma, the tumor is quite radiosensitive, but it has a tendency to spread by direct extension into the brain or to metastasize widely. The first two cases treated died from cerebral extension after an apparent cure of the primary tu-

mor. This started us to thinking, and we resolved not to shield the eye, but to include the eye and orbit in the field of radiation. At first we feared the development of either glaucoma immediately, or cataract at a later date, and told the patient the eye might be sacrificed. So far we have had neither. We have given as high as 5,000 r directly over the eye with no permanent ill effects as yet. What the future holds in the way of cataract, no one can predict. There is an immediately developing conjunctivitis, with slight, increased intraocular tension, followed later by rather severe conjunctival reactions, sometimes with corneal ulcerations. These complications are handled by the Eye Service. A case of this type is presented:

O. P. G. White male, age 60. Foul nasal discharge two years before admission, with some pain over left face. Two months before noticed swelling in left antral region. Biopsy: Carcinoma, antrum, transitional cell type. Treatment started November 14, 1936; 200 KV; TH two cu plus one al filtration; a total of 6,000 r over twenty days. Marked radiodermatitis and inflammatory reaction inside whole mouth. Three thousand cubic centimeters glucose given daily for six days. Mass receded in size and now there is no sign of further disease and patient is symptom-free.

Epidermoid carcinoma of the antrum is treated in the same manner, but the tumor is much more radioresistant, and the prognosis is poorer.

*Carcinoma of the Larynx.*—Up to the present time we have treated only lesions which were hopeless from the standpoint of surgery. It has seemed reasonable to us that if we were confronted with a relatively slowly metastasizing malignancy, fairly radioresistant, if complete surgical removal has been possible, this was the treatment of choice. There are certain types of purely local lesions, confined to the cords, where laryngeal fissure with surgical removal or direct treatment by radium would certainly seem preferable to treatment by external radiation. Our cases have been confined entirely to the group in which the malignancy is already extensive, due either to direct

extension or to metastasis. The extensive involvement of these cases must be borne in mind in evaluating the results of roentgen ray therapy, since we have not attempted external radiation in any which were amenable to surgical extirpation.

The cases treated by us have been those in which there has been massive involvement, many times complicated by a heavy infection. The element of infection has truly been the most troublesome factor, since three of our series succumbed to pulmonary abscesses after withstanding treatment very well. Since losing our last patient from this cause, about two months ago, the otolaryngologists and our service have gone into a huddle, and have decided that the next patient showing marked infection in a laryngeal malignancy will receive certain definite preradiation preparation. In all of our cases, preliminary tracheotomy has been performed, in order to eliminate the possibility of edema suddenly closing the air passages. A completely removable tracheotomy tube is used, and is removed while the patient is being radiated. The reason for this is that when a heavy metal is struck by the X-ray, soft radiation quite injurious to the tissues is given off, so this possible ill effect is guarded against. The tracheotomy lends itself to more efficient clearing of the trachea, but in heavy infections of the larynx we now believe it is insufficient. Infected material dropping from the larynx into the trachea may be cleared out very well during the waking hours, but during sleep infected material must almost invariably reach the lung. We now believe that a complete severance of the trachea above the tracheotomy, with outside drainage of the upper portion, and with removal of the larynx, will be tried in our next case with heavy infection.

Postlaryngectomy metastasis offers another problem. In this type of lesion, we do not have the complication of local infection, but have to deal with glands over a considerable area; so instead of treating only the demonstrable metastasis we include practically the entire neck in our fields of radiation.

J. M. R. White male, about fifty-five.



Hoarseness for two years. Laryngectomy September 10, 1935. Four months later developed glands in left cervical region, firm lump five to six centimeters in diameter. Biopsy: Grade II carcinoma. Deep therapy started January 3, 1936; 200 KV; TH two cu plus one al; a total of 5,000 r over twenty days. Mass disappeared with moderate amount of skin reaction and desquamation which healed nicely. No sign yet of any further disease.

*Sarcoma of the Head and Neck.*—Lymphosarcoma of the head and neck is not rare, and the reticulum cell variant is quite responsive to irradiation. The disturbing factors in these cases is the tendency to widespread metastases throughout the body, and when a given case presents itself it is entirely problematic as to whether metastasis has already taken place when the disease is diagnosed. A typical case history follows:

D. L. White male, age two. Recurrent draining ear, left, since birth diagnosed as a purulent otitis media. Polyps developed in left ear which were treated with X-ray. These recurred and in addition a cervical adenitis occurred on the left. Patient admitted August 7, 1936, for radical mastoidectomy. Despite this, glands on left enlarged markedly, and a biopsy showed a "radiosensitive tumor, most probably a lymphosarcoma," to be present. Roentgen irradiation begun September 8, 1936, and a total of 3,000 r given over fifteen days through Thoreus filter plus one al, 200 KV. Glandular enlargement in left cervical region subsided, and patient seemed definitely improved. However, he was readmitted October 22, 1936, in extremely poor condition, anemia, marked weakness, etc., with some cervical enlargement. Roentgenograms of long bones revealed moth-eaten rarefied areas at the diaphyseal ends.

Patient died October 29, 1936. Autopsy revealed lymphosarcoma arising in postauricular lymph nodes, left, with metastases to supraclavicular, abdominal, mediastinal, mesenteric, pelvis, and practically every lymph node in the body with other metastases to pleura, long bones, ribs, vertebrae,

lungs, bladder, stomach with petevhial hemorrhages.

In this type of patient the prognosis should be extremely guarded, although the local lesion melts away. If we are fortunate enough to see the patient before the metastases have occurred, we may hope for a good result, but how can we foretell this? A frequent remark made to our patients (or their families) is that "time alone will tell." Needless to say, a film of the chest is made before any treatment is instituted, and any possible bone pain is investigated radiologically in order to pick up possible metastases.

The prognosis is not uniformly hopeless as is illustrated by the following case:

H. W. White male, age twenty-three. Had nasal obstruction for six weeks. Examined in Kentucky on November 1, 1935, and tumor found in region of adenoids. Biopsy: Lymphosarcoma, nasopharynx. General health otherwise good. Treatment: Given 2,425 r to each side of nasopharynx over period of nineteen days—200 KV, two cu plu one al filtration, ending November 30, 1935. Tumor regressed in size ninety per cent during treatment and two months later had entirely disappeared. Patient apparently cured to date.

It may be well to sound a word of warning concerning glands in the neck in children. It has been our unfortunate lot to see two children during the past few months who had been treated elsewhere on the basis of infection because of enlarged cervical glands. One of these was the case just reported above, the second one being very similar in character. We will grant that this type of malignancy is uncommon, but it does occur, and delay may mean a life. We are now making it routine to biopsy every gland which is not obviously due to infection. If the gland is tender, boggy, and there is surface redness, together with temperature, leucocytosis, etc., it is all right to omit biopsy; but when there is doubt, get a histological specimen. Perhaps we are leaning over backwards, but these two cases certainly have left a lasting impression.

*Melanomas.*—These are very radioresist-

ant tumors, and if wide surgical extension is possible, this should be done. If not, the most intensive radiation treatment should be given, and in by far the majority of instances this will be insufficient. These tumors are bad news in anybody's language. Distant metastasis to the liver and brain is usually the end result.

R. W. White female, age seventy-six. Pain in right eye eight or nine years ago. Diagnoses glaucoma. Operation with partial relief. Pain continued for six years. Enucleation advised and done three years prior to treatment. Radon seeds implanted and patient did fine. Diagnosis: Melanocarcinoma, right orbit. Again pain developed in right cheek region in December, 1935, with slight epistaxis and difficulty in opening mouth. Nodular mass in region of liver in upper right quadrant present; therefore only a palliative dosage was given. Beginning on March 19, 1936, a total of 3,250 r with TH two cu plu one al filter over right orbit over period of thirteen days. Slight skin reaction. Impression: Recurrent melanocarcinoma, right orbit, with abdominal metastases. Patient is still alive at this time.

*Gliosarcoma.*—These tumors are usually seen in childhood and are very frequently bilateral. They are quite radioresistant, although Dykes of the New York Neurological Institute has recently reported some very good results. We have treated only one such case, the child finally dying of what was thought to be a cerebral extension. A post mortem was refused.

M. S. White male, age five and one-half. Noticed failing vision six months prior to treatment in right eye, together with "abnormal color sensations." Eye enucleated ten days prior to Roentgen therapy, which was started July 11, 1936. Path. report—Dr. Budd: Gliosarcoma. Total of 5,000 r given over right orbital region over twenty-day period; 200 KV; TH two cu plus one al filtration. General condition good. No sign of recurrence and little if any resultant permanent skin reaction. Patient well for about four months, then gradually began going downhill. Weight loss, weak-

ness, anemia, with persistent vomiting and some headache. Impression: Recurrence in brain of malignant process. Patient died about four weeks later. Autopsy refused.

*Carcinoma of the Tongue.*—We will dismiss this subject by stating that in our opinion the local lesion is best treated by interstitial applications of radium. If there is cervical gland metastasis, this should be treated by external radiation.

*Carcinoma of the Buccal Mucosa.*—This lesion is by no means rare and is usually due to, or at least associated with, carious teeth which cause constant irritation. In these lesions, if the process is local, with no demonstrable metastasis, we prefer to have the local lesion treated with radium. If there is cervical gland metastasis, the entire area of involvement is treated by external radiation.

*Malignancy of the Tonsil.*—This type of malignancy is rarely if ever local when first seen. Therefore, since it is relatively radiosensitive, we prefer to treat the tonsil and the subjacent area of the neck by intensive external radiation. Some of the best results in intraoral carcinoma reported in the literature have been in this type of lesion.

*Carcinoma of the Lip.*—Following the lead of the Martins of Dallas, Hodges of Richmond, and others, the trend of opinion is running definitely toward radiation treatment of these lesions and away from radical surgery. Either radium or X-radiation may be given, the main idea being to give sufficient dosage. Dr. J. M. Martin of Dallas has been treating such cases with X-radiation over a period of twenty or more years, and his results will certainly stand up against results obtained by any other method. A small margin is given around the evident malignancy, and from twelve to sixteen erythema doses of unfiltered radiation are given (4,800—7,200 r). An eminent radiologist in a recent conversation expressed it very well when asked about dosage, stating that he felt like turning the machine on, going away, forgetting the patient, and coming back, just being certain that he had been gone a long time. Healing after this type of treatment is re-



markably rapid, and excellent cosmetic results are obtained. Radium treatment, when properly given, will produce similar results, but only if given in sufficient dosage. If metastatic cervical or submental glands are present, it is our opinion that they should be treated by irradiation, whether interstitial or external; but in the case of a single gland, excision may be tried. At the present time, we are undecided as to the value of so-called prophylactic irradiation of the cervical glands in the absence of demonstrable metastasis.

*Metastatic Cervical Glands.*—The therapy of metastatic glands is in general the same as the treatment of other head and neck malignancies, with certain exceptions and complications which will be noted. If the glandular involvement is massive, external radiation over the entire area of involvement and adjacent tissue is advisable.

E. L. White male, age 60. Hard, pigmented moles on face which were removed with paste one year before admission. First noticed a small lump at angle of right jaw in neck in September, 1935. Gradual swelling and increase in size of mass until it was four centimeters thick and eight by ten centimeters in size. Pathology: Grade III metastatic carcinoma, cervical gland. Given 5,100 r; 200 KV; TH filtration over seventeen days, ending July 11, 1936. Also 2,400 r superficial radiation to outer canthus of right eye, small rodent ulcer being present here. Also three months later was given 1,350 r unfiltered radiation to lower lid, right eye, to recurrent lesion. On February 27, 1937, had further recurrence of rodent ulcer in outer canthus of right eye and this time was given 4,200 r to this area; 200 KV; TH filtration; over ten days.

If there is a single movable gland, interstitial irradiation with radon implants, or even surgical removal, may be considered. This is the exception rather than the rule. There is one complication in cervical involvement which may be very serious, and that is hemorrhage. We speak feelingly on this, for we have recently lost a case by fatal hemorrhage.

J. H. S. White male, age fifty. "Wart"

removed from lower lip by caustics twelve years prior—small, hard, indurated area removed at site of original lesion. About two years ago scales began to pile up. In October, 1935, lesion was excised. Cervical and adenitis noted in July, 1935. Inflammatory reaction appeared in this region, I. & Q. done, and pus recovered. Small draining sinus remained, together with marked thickening and induration, with adenitis under right jaw and small indurated area on lower lip on right. Biopsy: Epidemoid carcinoma, Grade III, lower lip with cervical metastases. Starting April 1, 1936, 3,850 r; 200 KV and TH two cu plus one al filtration; given over thirteen days. Marked inflammatory reaction in the mouth and radiodermatitis supervened, necessitating discontinuance of therapy. Lesion on lip apparently cured, and glands in neck disappeared. Fistula from mouth still remained. General condition continued good until October 15, 1936, when repeated hemorrhages and sloughing occurred in area treated. Jugular and carotid tied off, but patient died November 7, 1936, seven months after treatment.

Whenever the cervical glands are involved, this dangerous complication may occur, and there is no known way of preventing it, except perhaps by ligation of the large vessels when it is apparent that they will be eroded.

*General Considerations.*—When one is dealing with malignancy, it must be clearly borne in mind that, if we do not conquer the disease, the disease will kill our patient. With this in mind, we are justified in the most radical attack on such conditions, either through radiation or surgery. It has been stated that in surgery for carcinoma of the breast one surgeon should remove the breast and another attempt to close the skin. This is another way of stating that too many times an insufficiently radical operation has been performed in order that the surgeon might get a good closure. The same holds true of radiation. In the presence of malignancy, which untreated is definitely lethal, but with a possibility of cure when treated, we are justified in normal



tissue damage, which in by far the majority of instances is not permanent. Many radiologists are deterred from the treatment which they have learned is efficacious on account of the general fear of being accused of producing an X-ray burn, even if the superficial injury heals within a few weeks. One such aftereffect, not understood by the local doctor to whom the patient is returned, may be the cause of much unpleasantness due to a misunderstanding of that doctor concerning the expected aftereffects of irradiation. In the past, any loss of superficial tissue has been considered an "X-ray burn," and, with the method of treatment then in use, was justly feared. In this connection, it is believed that it would be well to refer to these results as skin changes, not X-ray burns, as the expression "X-ray burn" connotes a lesion which never permanently heals. Without present protracted treatment, with high filtration, we expect to see uniformly similar effects, with the important difference that ultimate complete healing occurs. The skin may be intentionally entirely denuded, as in treatment of carcinoma of the larynx, and return to normal within a few weeks.

Remembering that we are dealing with a disease which is 100 per cent deadly unless we conquer it, we approach as closely to the border line of permanent damage as may be necessary. Occasionally this zone is unavoidably overstepped, although in the hands of skilled men this occurs quite infrequently. There are certain circumstances beyond our control which are unpredictable. To use a slang expression, there are certain individuals who do not seem to be able to "take it." Do not forget that the disease is uniformly fatal, the treatment a fraction of this. Also let us not forget that in the simplest surgical procedures there is also an appreciable mortality.

To particularize, let us consider the expected aftereffects which clear up, and the complications and sequelae that occasionally ensue. First, the skin effects. Varying with the site and character of the malignancy, we expect to produce skin effects ranging from a marked erythema with

desquamation to complete destruction of the superficial layers of the skin. Ordinarily these areas are healed within a few weeks, being bridged by epithelium from the edges. Occasionally infection intervenes. One of our own cases went home, and a child in the house developed scarlet fever. This patient had as violent an erysipelas starting in the area of denudation as one could imagine. Diabetes retards healing very markedly, and we are always sorry to see such a patient come to us. Occasionally, due to the blocking of the superficial lymphatics by irradiation, we produce a lymphedema, which is very annoying, but unavoidable. An example of this is the extensive lymphatic block in the neck sometimes seen following heavy irradiation for carcinoma of the larynx. This may eventually clear up. Marked permanent scarring is usually not obtained with the methods now used, but is seen occasionally, particularly about the body, where telangiectasis may result. A residual tanning and loss of hair is almost uniformly encountered over the areas treated.

In treatment about the mouth particularly, there is a possibility of necrosis either in the mandible or cartilage of the larynx. This occurs infrequently, but occasionally. In addition to these other manifestations, we expect and get marked constitutional disturbances in at least eighty per cent of our cases. The soreness of the mouth will prevent taking of both foods and liquids. We have found while the reaction is at its height that intravenous glucose will tide the patient over. After the pain has subsided, taste has been so altered that food is repulsive, and the patients will not eat. At this stage, small doses of luminal about an hour before mealtime have proved helpful. Needless to say, oral hygiene is extremely important in combating sepsis and dryness of the mouth. As far as the external lesions are concerned, we believe that the less medication used, the more rapid will be the healing, and we tell the patient to "grin and bear it." In treatment over the eye, the conjunctivitis must be treated, and corneal ulcers cared for, should they de-

velop. We feel that the eye men are much better qualified to care for this than we are.

In closing, there is one subject which should be emphasized; that is, the relationship of the radiologist to the patient. In treatment such as is administered in these cases, it is absolutely essential to secure the perfect cooperation and confidence of the patient. To do this it is necessary to explain the condition as it exists, the hopeless prognosis without treatment, and the possibility of cure with treatment. The attendant discomforts are emphasized rather than minimized, and each step is outlined, that is, the ulceration of the mouth, skin damage, etc., with approximate time of appearance. The patient is then required to sign a statement saying that this has been explained. In short, we believe in the utmost frankness with these people, for if you try to hide something from them, they will eventually find it out, and you will lose not only their cooperation but also their confidence. We laughingly tell our folks in advance that after the tenth day, when the reaction will be getting severe, we will search them for guns or other lethal weapons before they come into the department. Then when they do get their reaction we ask, "Did you bring your gun today, or is it going to be tomorrow?" In four years'

experience, we have yet to have a real complaint. We grant that a very small percentage may be too frightened to take the treatment, but it would be impossible to secure sufficient cooperation from them anyway. So far, not a single patient has refused to go the limit with us.

#### SUMMARY

1. A very appreciable percentage (twenty-five to thirty-five per cent) of otherwise hopeless cases will be salvaged.
2. With our present-day method of protracted, high-voltage treatment with heavy filtration, we expect marked, immediate skin changes, even to loss of skin.
3. These effects usually heal within a few weeks, with very little scarring.
4. Occasional bone and cartilage necrosis occurs.
5. General constitutional disturbances are encountered in at least eighty per cent of the cases, subsiding within a few days after completion of treatment.
6. Malignancy is practically uniformly fatal, and the most drastic measures are justifiable, if there is a possibility of a cure.
7. The complete confidence of the patient must be secured by very frank discussion before treatment is instituted.

## THE MANAGEMENT OF HOME DELIVERIES\*

HARRY H. JENKINS, M.D., Knoxville

WELL OVER TWO centuries ago, the poet, Alexander Pope, penned these well-known lines:

"A little learning is a dangerous thing,  
Drink deep, or touch not the Pierian  
spring."

And the weight of years has only added to the truthfulness of his observation. In the world at large, however, and particularly in the medical world, it is equally as dangerous, and perhaps even more criminally so, to fail to apply the learning that everyone has; the knowledge now so common, but which took the lives of Pasteur, of Lister, of Oliver Wendell Holmes, and many others to gain; that infections can be avoided; but only as the result of minute and scrupulous care along definite lines which we now call aseptic technique.

In 1935, in the state of Tennessee, there were approximately 53,600 live births. There were 359 maternal deaths or a maternal mortality rate of 6.7 per 1,000 live births. 152 of these deaths were the result of puerperal septicemia, making the mortality rate for infection 2.9 per 1,000 live births. *Forty-two per cent of our mothers that die die as a result of a lack of aseptic technique, either avoidable or unavoidable.*

Tennessee is essentially a rural state, and most of the deliveries are made at home. An overwhelmingly large proportion of these cases of septicemia are in patients that were delivered at home. Let us picture a typical hospital delivery: The patient is brought into the hospital in labor. She is immediately given an enema to cleanse the lower bowel; the vulva and perineum are

then shaved clean of all the hair, scrubbed thoroughly with soap and water, and covered with a sterile pad. Before each vaginal examination, the vulva and surrounding area are again cleansed with soap and water. The examiner scrubs his hands well as if for a surgical procedure, dries them on a sterile towel, and dons two sterile gloves.

At delivery, the legs of the patient are put in secure stirrups, the whole perineal region is thoroughly scrubbed again with soap and water, and some antiseptic solution applied. Sterile leggings and sterile linens are draped three deep over all portions of the patient, room, and furniture that may be contacted during the delivery. The accoucheur and all his assistants don cap, gown, mask, and gloves with an approved aseptic technique, as in any surgical procedure, and woe be to the unfortunate nurse or intern who lets a break occur in this technique. The whole proceeding is scientific, is aseptic, is secure.

Now let us picture an average home delivery: The doctor is called when the patient goes into labor. He rushes out to the house, checks the frequency and duration of the pains. He may wash his hands and dry them on the handiest towel or not even wash them at all, slip into one glove, and examine the cervix for dilatation. When the time comes for delivery, if he is one of the better doctors, he drapes some towels around the legs, again washes his hands and puts on gloves, and is all set for delivery. No perineal preparation, no linen drapings, no aseptic technique for the accoucheur save for the gloves, and even those are all too often left off. I have heard

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.



of deliveries here in the city of Knoxville where the doctor did not even use sterile scissors to cut the cord. If a rigid routine without the slightest qualification is required in our hospitals, why can we be so lax in our homes?

It is not the purpose of this paper to offer anything new in the way of aseptic technique; but merely to call our attention to the crying need for the application in the practicing of obstetrics in the home of those principles which are the very foundation of scientific medicine and scientific obstetrics; those principles that lift the delivery of the childbearing mother out of the realm of the midwifery of the middle ages into the modern science of obstetrical practice.

Such a technique requires no special knowledge; it requires no large outlay of funds; it requires only a few minutes of added time.

I have previously said that I have nothing new to offer in the way of aseptic technique; but I should like to call to your attention the type of obstetrical equipment issued by the teaching hospitals for use of the students in making home deliveries. This one is a slight modification of the one used at Tulane School of Medicine, where the deliveries are done by senior students, supervised by an instructor. I might add that in the five years that this clinic has been running (1930-1935) a review of over one thousand deliveries at home by senior students, and including application of forceps, versions, and breech extractions (these were usually done by the instructor), showed a maternal mortality rate of exactly zero, and in the year that I served as instructor there, and, as far as I know, in previous years, not one case was even hospitalized because of post-partum infection.

The obstetrical bag is made of fibre-board, unlined, and can be scrubbed as often as necessary, thus eliminating the possibility of carrying infection from one patient to another by this method. The contents are as follows:

<i>For Asepsis</i>	<i>Medicines</i>
Rubber apron	Alcohol
Rubber sheet	Lysol
Two sterile hand brushes	Pituitrin
Razor and blades	Silver nitrate (in wax amps.)
Shaving soap	Mercurochrome
Sterile applicators	Ether
	Alphalobein and other stimulants
<i>Sterile Linens</i>	Sedatives
Cap and gown	Ergot preparations
Six towels	Procaine
Gauze	Vaseline
Cotton roll	
Leggings	<i>Instruments</i>
Table piece	Hypo syringe and needles
Perineal sheet	Ether mask
Cord ties	Ear syringe
5 yards gauze roll	Placenta basin
Gloves (three pairs)	Instrument basin
Towel and gloves (two pairs)	Umbilical scissors
	Umbilical clamps
	Repair instrument
	No. 2 chromic catgut suture
	Forceps OBS
	Rubber catheter
	Baby scales

As for cost, the bag was made especially for me here in Knoxville, and cost five dollars, the gowns cost approximately fifty cents apiece, and the leggings, table piece, and sheets I had made by an ordinary seamstress for about a dollar for three complete sets, out of ordinary cotton sheeting, two and a half yards wide at thirty-nine cents a lineal yard. The instruments and medications everyone has around the office and cannot be figured an added expense. In all the total cost of such an outlay is considerably less than the price of an ordinary leather obstetrical bag, a satisfactory one of which I have yet to see.

As for the time necessary to keep such a bag in order, if several sets of linens, which are negligibly inexpensive, are obtained, and these are wrapped in cloth or paper and autoclaved in advance by the nearest hospital (which today are numerous enough to be accessible to every physi-

cian in the state), it is a simple matter for the office girl to cleanse the bag and instruments, sterilize the necessary instruments, and repack the bag, checking with the list pasted in the top to avoid any omissions; or even, if the practice warrants, more than one bag may be procured.

At this time, I should like to show a short motion picture, demonstrating a home delivery under the conditions outlined above.

### CONCLUSIONS

1. The maternal mortality rate resulting from infections is appalling.

2. This rate can be materially reduced by an application of the widely known and commonly accepted aseptic technique in home deliveries as already used in all hospitals.

3. The equipment necessary for the use of such aseptic technique may be procured and managed with a negligible expenditure of money and time.

4. A complete list of the equipment necessary and the cost thereof is suggested.

5. A cinematic demonstration of a home delivery is shown.

### DISCUSSION

DR. L. J. CALDWELL (Nashville): I rise just to compliment the essayist for the paper. I want to say that if we have our home deliveries or our hospital deliveries attended by men with the training that Dr. Jenkins has had our mortality will be reduced not only in the hospital but in the home. I congratulate him on the paper as a whole and on the excellent demonstration.

It is a known fact that the great majority of cases are necessarily delivered in the home. Probably sixty to seventy per cent of the obstetrics throughout this country is done by the general practitioner in the home. Dr. Jenkins is enthused over this work. He was evidently interested in obstetrics, he was a leading man in his work at

Tulane University, had charge of the work of the outdoor clinic evidently, and was so influenced by the results that he was getting, and he was so full of it, he had to bring it here before this meeting to demonstrate it. I glory in such a demonstration and want to commend it.

There are a few little points that we might mention that I am reluctant to speak of because of possibly taking some of the glitter from his paper, but I think it is necessary to mention those things. If the patient has a post-partum hemorrhage in a complicated case, and it becomes necessary to type the woman and transfuse her, that is a case that gives unavoidable trouble in the home. However, as I said originally, to discuss that is merely detracting from his paper and does not cover the point he brought out. He was discussing the point of asepsis and not accidents of difficult delivery. However, everyone who does any amount of obstetrics knows that the safe place for primiparas and all potentially dangerous cases is in the hospital.

I want to congratulate the young man on his paper and to say that everything he said was correct.

DR. W. R. ARRANTS (Athens): There is one point the doctor did not bring out in asepsis of home deliveries (it applies to a lesser extent in hospital practice), and that is the repeated examination of your patients. I think most of the infections these women have are infections we carry in from the outside. If we will get away from them until they are ready to deliver, if they are in the country, get out in the back yard, or if they are in the hospital, go on home, at least get out in another room and let the women alone until they are ready to be delivered and not examine them, they will be better off. I think that is the greatest curse we have in home obstetrics—to examine these women every fifteen or thirty minutes or every hour to see how they are getting along. We can usually tell even without a vaginal examination when they are ready to deliver.

I think that is one point on which the doctor did not touch.

DR. HARRY JENKINS (closing): I certainly appreciate these remarks.

In connection with the question of too numerous vaginal examinations, I certainly think that we can

all agree with the doctor that the less vaginal examinations the better chance we have of getting an uninfected patient.

I was asked a question just a minute ago about the use of an ampule or an injection of ergot as well as of pituitrin immediately after the delivery of the placenta. I personally give my ergot prepara-

tions in the form of Lilly's Ergotrate, Wyeth's Ergoklonin, or one of those preparations, by mouth immediately afterward instead of giving them a hypodermic of ergot. However, I do not see any objection to using ergotole. As a matter of fact, I carry it in the bag, to be given intramuscularly if it is necessary.



# THE JOURNAL

OF THE

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H. H. SHOULDERS, M.D., Editor and Secretary

JUNE, 1937

## EDITORIAL

### THE MEDICAL PROFESSION AND THE PUBLIC

There is no doubt but that a change has taken place in the relationship between doctors and their patients.

It is not true that a radical change has taken place universally. The change is most marked in the areas where agencies of one sort or another interpose their opinions, advice, and influence.

Another reason for the change is that the relationship between an individual doctor and an individual patient is not as exclusive as was the case some years ago. For example, a number of doctors may collaborate in the diagnosis and management of a given case of illness. A general practitioner has charge of the case. He in turn brings in the X-ray man, or consultants in the various specialties, as a result of which the practitioner may lose something in the way of prestige with the patient. This, of course, should not occur.

Doctors as a rule appreciate the fact that this change has taken place and they are anxious to correct it if possible.

The difficulty lies in finding a satisfactory means or method for this accomplishment.

A number of editorials have been written by Mr. E. H. Bobst, president of Hoffman-LaRoche, Incorporated. We have read some of these editorials. We find much in them that can be approved and endorsed. It does seem that the one entitled "The Oath versus Self-Preservation" implies an error.

In our opinion, the oath of Hippocrates in no way interferes with the self-preservation of doctors. In other words, the adherence to the provisions of the oath does not and will not in the long run work a ruinous effect on the financial condition of the doctors. A false interpretation of the code or oath leads to false conclusions.

Time has proven the worth of the provisions of the code. Time has not yet proven the value of money ideas that are being advanced.

Mr. Bobst makes a very liberal financial offer to contribute funds toward financing a public relations committee. The purpose of which committee would be to go to the public directly with information and education to correct the false impressions that have grown up as a result of the propaganda and agitation that has been carried by many different agencies.

Certainly the suggestion of Mr. Bobst in this regard is worthy of serious consideration.

### VOLUNTARY HOSPITAL INSURANCE PLANS

Experience is increasing in the operation of voluntary hospital insurance plans by which workers and their families budget their hospital bills through monthly payments.

Some of these plans that have been started have died. Some that were begun as a private racket, of course, have died.

The essential prerequisites to success are becoming increasingly apparent. They were written down by the American Hospital Association after some experience. They are as follows: emphasis on public welfare; nonprofit sponsorship and control; free choice of hospital by subscriber; limitation of benefits to hospital service; representation of community and professional interests; economic and actuarial soundness; dignified promotion and management.

It is quite possible and very probable that these plans will multiply and that their usefulness will increase as their faults are eliminated and their virtues magnified.

The medical profession is vitally interested in everything that affects the welfare of hospitals and the welfare of people. It

is, therefore, of the greatest importance that doctors keep themselves informed and ready to give wise counsel in the formation of such plans when proposed for any community.

It was not many years ago that life insurance and health insurance were rackets to a considerable extent. As time has gone on a large majority of the crooks have been eliminated. Sound basis for the conduct of the business was developed and followed. As a result of these developments the insurance business is probably the biggest single business in the United States today.

The racketeering promoter has appeared time and time again in the insurance field. Doubtless he will appear again from time to time in connection with these plans, but as time goes on he will be eliminated with the faults in his plans—and maybe, at least we hope, there will be developed plans which meet the needs of the situation in every community.

#### THE AMERICAN BOARD OF SURGERY

Attention is called to a news item in this issue of the JOURNAL concerning the American Board of Surgery which has been formed recently.

It is thought that this matter is of sufficient importance to merit special attention.

See News Notes and Comment.

#### THE MAN OF FIFTY

In a previous issue of the JOURNAL attention was called to the fact that an advertising campaign is being carried on by E. R. Squibb & Sons for the purpose of stimulating the man of fifty to go to his doctor and have a checkup of his physical condition, regardless of whether he thinks he is sick or well.

Evidence is accumulating to the effect that the campaign is becoming increasingly effective.

Certainly if the campaign on cancer has served to bring the patients with a cancer, or suspected cancer, to the physician earlier in the illness, it is possible to assume that this campaign will also influence the man of fifty years.

This is a great opportunity for the medical profession to be of service to the man of fifty, provided we handle the opportunity as it should be handled.

The first prerequisite is for the doctor to make a serious effort toward a thorough survey of the physical condition of the man of fifty years who presents himself for such a study. His condition must not be treated lightly. The doctor's demeanor should be as serious as that of the railroad employee who inspects the train before its departure.

A record of the findings should be made and kept for future reference.

A doctor cannot remember from one year to the next what the blood pressure was—what the pulse rate was, etc. A change in these findings from one year to another may be of great significance so our plea is that the profession be equipped and ready to render the service that is proposed.

The American Medical Association, some years ago, had physical examination forms made for distribution. Our information is that they are still available and can be had at a very reasonable price.

If the form is followed a uniformity of procedure will be carried out, which will be of value both to the doctor and the patient.

## DEATHS

Dr. G. B. Gillespie, Covington; Vanderbilt University, School of Medicine, Nashville, 1875; aged 93; died April 14.

## NEWS NOTES AND COMMENTS

The Committee on Nursing Education and Nursing Practice, 414 Cotton States Building, Nashville, have issued a forty-page booklet in which it given the names and addresses of all registered nurses in the State of Tennessee.

Physicians desiring a copy of this list may obtain one, without expense, by writing the committee at the above address.

#### AMERICAN BOARD OF SURGERY ORGANIZED

In answer to the widespread demand for an agency which will attempt to certify

competent surgeons the American Board of Surgery has recently been organized. This board is a member of the Advisory Board of Medical Specialties which includes all of the boards of certification for the different medical specialties which have been already organized. Since boards were in existence for the certification of practitioners of some of the surgical specialties such as ophthalmology, otolaryngology, obstetrics and gynecology, genitourinary surgery, and orthopedic surgery, it is expected that the American Board of Surgery will be responsible for the certification of general surgeons as well as those practicing in the remaining specialized subdivisions of surgery.

Acting upon the invitation of the American Surgical Association the following surgical societies cooperated in the creation of the American Board of Surgery: the American Surgical Association, the Surgical Section of the American Medical Association, the American College of Surgeons, the Southern Surgical Association, the Western Surgical Association, the Pacific Coast Surgical Association, and the New England Surgical Society. The first three of these bodies which are national in scope have three representatives on the board. All of the other societies have one representative each. The representatives of the cooperating societies are nominated by the society which they represent and upon approval of the board shall become members of it. The term of membership on the board will be six years. The following were chosen to represent the cooperating surgical societies:

Dr. Evarts A. Graham, Dr. Arthur W. Elting, Dr. Allen O. Whipple, representing the American Surgical Association.

Dr. Donald Guthrie, Dr. Erwin R. Schmidt, Dr. Harvey B. Stone, representing the American College of Surgeons.

Dr. Fred W. Rankin, Dr. Howard M. Clute, Dr. J. Stewart Rodman, representing the Surgical Section of the A. M. A.

Dr. Philemon E. Truesdale, representing the New England Surgical Society.

Dr. Thomas Orr, representing the Western Surgical Association.

Dr. Robert Payne, representing the Southern Surgical Association.

Dr. Thomas Joyce, representing the Pacific Coast Surgical Association.

The following officers were elected:

Chairman—Dr. Evarts A. Graham.

Vice-Chairman—Dr. Allen O. Whipple.

Secretary-Treasurer — Dr. J. Stewart Rodman.

Two groups of candidates are recognized for qualification by the board:

- (a) Those who have already amply demonstrated their fitness as trained specialists in surgery.
- (b) Those who, having met the general and special requirements exacted by the board, successfully pass its qualifying examination.

The first of these groups, the Founders Group, upon invitation by the board will be chosen from the following:

- (1) Professors and associate professors of surgery in approved medical schools in the United States and Canada.
- (2) Those who for fifteen years prior to the board's organization have limited their practice to surgery.
- (3) Members of the American Surgical Association, the Southern Surgical Association, the Western Surgical Association, the Pacific Coast Surgical Association, and the New England Surgical Society, who are in good standing January 9, 1937.

All applications for the Founder's Group must be received within two years of the board's organization, January 9, 1937. No candidates for the Founder's Group will be considered after that date.

Requirements for those to be qualified by examination will be as follows:

- (1) Graduation from a medical school of the United States or Canada recognized by the Council on Medical Education and Hospitals of the A. M. A. or graduation from an approved foreign school.
- (2) Completion of an internship of not less than one year in a hospital approved by the same council, or its



equivalent in the opinion of the board.

- (3) *Special Training*.—A further period of graduate work of not less than three years devoted to surgery taken in a recognized graduate school of medicine or in a hospital or under the sponsorship accredited by the American Board of Surgery for the training of surgeons. This period of special training shall be of such character that the relation of the basic sciences of anatomy, physiology, pathology, bacteriology, and biochemistry is emphasized. Knowledge of these sciences as applied to clinical surgery will be required in the examination. Adequate operative experience in which the candidate has assumed the whole responsibility will be required. An additional period of not less than two years of study or practice in surgery.

- (4) The candidate must present to the board sufficient evidence of good moral character as to justify it in the belief that he will not engage in fee splitting and other dishonest practices.

It is expected that the board, with the assistance and cooperation of the American Medical Association and the American College of Surgeons, will be able to increase the facilities which now exist for the adequate training of young surgeons by means of residencies, fellowships, etc., in suitable hospitals.

The above requirements, especially those referring to surgical training, are subject to change from time to time as the existing opportunities for training in this field of specialization may be broadened.

The qualifying examination will be divided into two parts: Part I, written, and Part II, clinical, bedside, and practical. The written part, Part I, will concern itself with general surgical problems and with the clinical application of the basic sciences of surgery to these problems. This examination will cover a period of three hours each and will be held simultaneously in as many centers as are necessary to ac-

commodate the number of applicants who are eligible. Part II is entirely oral and will also concern itself, in the main, with general surgery and, as stated for Part I, clinical application of the basic sciences to the clinical problem represented. In addition to this, in Part II, an examination will be given to test the candidate's knowledge of operative surgery, X-ray plate interpretation, and the principles and application of surgical anesthesia. This examination will be held in as many centers as the board may determine necessary to accommodate the eligible candidates. Re-examinations will be allowed providing one year shall elapse between examinations.

The fee for Group A, the Founder's Group, shall be \$25. The fee for Group B shall be \$75, payable as follows: \$5 for registration fee, which shall be returned if the candidate is not accepted for examination; \$20 for Part I; and \$50 for Part II. The same fee will be required for each re-examination. Once the candidate has become qualified, he will have no further financial obligation to the board.

This board is a nonprofit organization. All fees will be used, after a reasonable amount is set aside for necessary expenses, in maintaining its office, conducting examinations, etc., to aid in improving existing opportunities for the training of the surgeon.

A certificate attesting to a candidate's qualifications in surgery after meeting the requirements of the board will be issued, having been signed by its officers.

Any certificate issued by the board shall be subject to revocation by the board at any time in case it shall determine in its sole judgment that a candidate, who has received a certificate, either was not properly qualified to receive it or has become disqualified since its receipt.

The board will hold its first examination (Part I, written) on September 20, 1937. All inquiries concerning applications for this examination should be received by the secretary's office promptly.

Requests for booklets of information, application blanks, and other information should be addressed to the secretary—Dr.

J. Stewart Rodman, 225 South Fifteenth Street, Philadelphia, Pennsylvania.

The following doctors are in Vanderbilt Medical School for postgraduate study in medicine and related branches of clinical diagnosis:

Dr. W. E. Boyce, Hohenwald, Tennessee.

Dr. K. A. Bryant, Maryville, Tennessee.

Dr. R. T. Keeton, Brownsville, Tennessee.

Dr. L. P. Pearce, Collierville, Tennessee.

Dr. W. B. Barton, Briceville, Tennessee.

These men have qualified under the Commonwealth Fund Fellowship and will have an intensive course for four months.

Dr. Youmans of Vanderbilt staff has charge of the group the first month.

Dr. Wallace L. Poole announces the opening of offices for the practice of medicine with special attention to the prevention and treatment of the diseases of children, 215 East Market Street, Johnson City, Tennessee.

The secretary's office has been rather active during the last month in the effort to increase the membership of the state association.

Each county secretary in the state has been written a letter requesting that he send to this office a list of the eligible nonmembers practicing medicine in his county.

As is well understood, every county society is the only judge of its members and no one can become a member of the state association except by joining the county society. A number of secretaries have sent us a list of eligible nonmembers and a letter will soon be written to each of these urging membership in the county society and thereby increasing the membership of the state association.

There are still a few eligible doctors in the state who should want membership in their county society and we hope that every member of the state association will do what he can to assist us in reaching the goal of having every eligible practitioner of medicine in the State of Tennessee a member of the state association.

When the mailing list was corrected for

the May issue of the JOURNAL there were 183 names omitted, due to nonpayment of dues. Each one of these 1936 members was sent a letter notifying him that his dues had not been paid to the county secretary and that his name had been omitted from the mailing list of the May issue of the JOURNAL.

Since that letter has gone out the county secretaries have sent us forty-three memberships. We also learn from these letters that several of the 1936 members had moved to other states and were no longer eligible to membership in Tennessee. As a result of these activities and the continual cooperation of the county secretaries the present membership of the state association is 1,548. Compared with last year's membership on June 7 which was 1,453, or ninety-five members more on the same date of 1936.

#### NARCOTIC ACT

The Uniform Narcotic Act as passed by the 1937 General Assembly of Tennessee meets a long-needed requirement for the more adequate control of the distribution and uses of narcotics in the state. Governor Gordon Browning is to be commended for his active sponsorship of this particular bill which was included among other important legislative items of the State Department of Public Health. The act as drawn sets up state regulations corresponding to federal regulations as set out by the Harrison Narcotic Act and further provides that satisfactory compliance with the federal law shall be deemed to satisfy state requirements. It, therefore, places no special or extra burden upon the manufacturers, distributors, dispensers, and users of narcotic preparations. It permits full cooperation between federal and state agencies, which in the latter instance is the Department of Public Health, by permitting the mutual interchange of information which prior to the enactment of this law was not possible. The costs of enforcement to the state will be negligible since the present staff of the State Health Department can carry out its provisions in full without the addition of extra personnel at this time.





standing this year. With the floodwaters menacing our neighboring towns and refugee colonies located near by, the auxiliary members launched on a new field of work. One group alone furnished fifty workers. Very substantial cash donations were given the American Red Cross from practically every county auxiliary, as well as from the state organization, for the desperate need of the flood sufferers; \$100 for cod-liver oil for undernourished babies was given by one group. One group has derived great pleasure and satisfaction from sponsoring a "Girl Scout Troop" among underprivileged girls in the city.

In almost every instance the auxiliaries are giving enthusiastic support to the army for the control of cancer.

Several interesting programs on *Hygeia* were given during the year with pleasant results. Our campaign cry, "a subscription for every member," proved a good challenge. The result was 110 subscriptions.

Our press and publicity work is a pleasure. The auxiliary is given a page in each month's State Medical Journal, and quite often they will go into a second page rather than cut our interesting news articles.

*Public Relations.*—In several instances auxiliary groups have been called on to procure speakers for lay organizations. In each instance physicians have given full cooperation.

One county group secured from the A. M. A. an exhibit on cosmetics for the State Parent-Teacher Convention. One group still owns and operates its very useful audiometer which it shares with adjoining counties. Another group is a member of the Women's Civic Forum in the city. Another auxiliary is a member of the "Maternity Welfare League."

It has been a distinct honor to serve the Medical Auxiliary of the "Volunteer State" through the past year. I have strived to uphold the dignity of the office as it has been in the years gone by. There has been complete harmony and cooperation throughout. If we have made history, and that history shows constructive progress, then the laurels go to my many coworkers. Bless them.

We wish continued success and much auxiliary happiness to the incoming president.

Respectfully submitted,

HELEN HAWKINS MORFORD.

(Mrs. Theodore Morford.)

## MEDICAL SOCIETIES

### *Campbell County:*

The Campbell County Medical Society met at the Peoples Bank in La Follette, May 27, 1937. Dr. W. R. Cross, pediatrician from Knoxville, was the guest speaker.

Members present were Drs. J. F. Slemmons, M. L. Davis, J. W. Presley, A. L. Lawson, J. P. Lindsey, G. M. Rogers, W. D. Gibson, G. B. Brown, S. S. Brown, S. D. Queener, R. W. Lewis, Joseph McCoin, and R. G. Buckman. Dr. Joseph McCoin had as guest Dr. M. F. Brown, field director in the Department of Public Health.

Dr. W. R. Cross addressed the society on "Summer Diarrheas." The paper was timely and most practical, containing points that will be of distinct benefit to the members during the coming summer months. Discussion was opened by Dr. J. F. Slemmons.

Dr. M. F. Brown spoke a few words to the society on the reporting to the Health Department of communicable diseases, giving a few of the state statistics to bear out his point that not all of the communicable diseases are being reported.

R. J. BUCKMAN, M.D., *Secretary.*

### *Davidson County:*

May 11—"Appendicitis," by Dr. R. A. Barr. Discussion opened by Drs. W. H. Witt and D. W. Smith.

Case Report: "Hirschprung's Disease," by Drs. T. D. McKinney and Thos. Grizzard. Discussion opened by Dr. Thomas Frist.

May 18—"Spinal Anaesthesia in Obstetrics," by Dr. E. E. Anderson. Discussion opened by Dr. M. S. Lewis.

"Notes on Mortality of Neurosurgical Operations," by Dr. Cobb Pilcher.

May 25—"A Critique of the Literature on the Supports of the Uterus," by Dr. J.

(Continued on page 224)

## LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. Geo. C. Williamson, Columbia.  
 Vice-President for West Tennessee—Dr. F. K. West, Rossville.  
 Vice-President for Middle Tennessee—Dr. Jack Witherspoon, Nashville.  
 Vice-President for East Tennessee—Dr. Andrew Smith, Knoxville.  
 Secretary-Editor—Dr. H. H. Shoulders.  
 Assistant Secretary-Editor—Dr. W. M. Hardy.

## TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville.  
 Dr. A. F. Cooper, Goodwyn Institute Building, Memphis.  
 Dr. E. R. Zemp, Walnut Street, Knoxville.  
 Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.  
 Dr. W. L. Williamson, 915 Madison Ave., Memphis.

## COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.  
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 Dr. J. O. Manier, Nashville; Middle Tennessee.  
 Dr. E. C. Ellett, Memphis; West Tennessee.

## OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	VICE PRESIDENT	SECRETARY-TREASURER
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		J. O. McKinney, Friendship (Crockett)	C. L. Denton, Dyersburg
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Fentress	C. A. Collins, Wilder	A. H. Crouch, Forbus	J. P. Sloan, Jamestown
Franklin	Alfred Parker Smith, Winchester	Geo. E. Bogart, Sherwood	John M. Hardy, Sewanee
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Giles	J. G. Waldrop, Lewisburg	A. W. Deane, Pulaski	T. F. Booth, Pulaski
Greene	W. T. Mathes, Greeneville	M. A. Blanton, Mosheim	I. E. Phillips, Greeneville
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	R. A. Purvis, Morristown	P. L. Henderson, Morristown
Hamilton	E. A. Gilbert, Chattanooga	A. M. Patterson, Chattanooga	J. Marsh Freer, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	Otis Whitlow, Savannah	J. V. Hughes, Savannah (Hardin)	O. H. Williams, Savannah
		V. H. Crowder, Lawrenceburg (Lawrence)	
		Paul Wylie, Hohenwald (Lewis)	
		J. W. Frost, Linden (Perry)	
		J. T. Keeton, Clifton (Wayne)	
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Macon	D. D. Howser, Lafayette	P. East, Lafayette	J. Y. Freeman, Lafayette
Madison	J. C. Pierce, Mercer	John E. Powers, Jackson	S. M. Herron, Jackson
Maury	H. C. Busby, Columbia	C. O. Fowler, Spring Hill	D. B. Andrews, Columbia
		R. S. Perry, Columbia, R. F. D.	
McMinn	Boyd McClary, Etowah		D. F. Seay, Englewood
McNairy	John R. Smith, Selmer		H. C. Sanders, Selmer
Monroe	R. C. Kimbrough, Madisonville		E. P. Bowerman, Madisonville
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Obion	M. T. Tipton, Union City		W. B. Harrison, Union City
Overton			A. B. Qualls, Livingston
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Putnam	W. A. Howard, Cookeville	R. L. Witherington, Cookeville	Thurman Shipley, Cookeville
Roane	C. F. Fly, Kingston	L. A. Killeffer, Harriman	W. W. Hill, Harriman
Robertson	E. W. Adair, Springfield	W. P. Stone, Springfield	J. E. Wilkinson, Springfield
Rutherford	T. J. Bratton, Woodbury	John F. Cason, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	Pitney Phillips, Robbins	Milford Thompson, Oneida
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		J. R. Butler, Mountain City (Johnson)	
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White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, Route 3	A. F. Richards, Sparta
Williamson	J. Knox Galloway, Franklin	W. F. Roth, Jr., Franklin	K. S. Howlett, Franklin
Wilson	M. H. Wells, Watertown	R. N. Buchanan, Jr., Lebanon	R. B. Gaston, Lebanon

## COMMITTEES

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The following is a list of the standing committees of the Tennessee State Medical Association provided for in the constitution and by-laws and appointed by the proper authority, together with some special committees appointed under the authority of a resolution by the House of Delegates.

Some of the committees are appointed for a definite period. In such instances the appointment of the committeeman expires with the meeting of the House of Delegates in the year stated opposite his name.

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Dr. Frank Harris, Chattanooga.  
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### COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. L. W. Edwards, Chairman, Nashville (1939).  
Dr. E. W. Cocke, Memphis (1941).  
Dr. Battle Malone, Memphis (1940).  
Dr. Tom Barry, Knoxville (1938).  
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Not filled.

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Dr. R. B. Wood, Knoxville (1938).  
Dr. D. W. Smith, Nashville (1940).  
Dr. H. B. Gotten, Memphis (1938).  
Dr. W. O. Baird, Henderson (1939).  
Dr. J. M. Lee, Nashville (1939).

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Not filled.  
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Dr. L. J. Lindsey, Covington.  
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Dr. Oliver Hill, Knoxville.  
Not filled.  
Not filled.

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Dr. John M. Lee, Nashville.  
Dr. J. O. Manier, Nashville.  
Dr. W. L. Williamson, Memphis.  
Dr. John B. Youmans, Nashville.



F. Gallagher. Discussion opened by Dr. H. M. Tigert.

Case Report: "New Aid to Diagnosis of Placenta Praevia," by Dr. Hamilton Gayden. Discussion opened by Dr. H. S. Shoulters.

There will be no meetings of the academy during June, July, and August. Meetings will be held every Tuesday night beginning in September.

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*Dyer, Lake, and Crockett Counties Medical Society:*

The Dyer, Lake, and Crockett Counties Medical Society met in regular monthly session on Reelfoot Lake, June 2. Scientific program:

"Chronic Non-Tuberculous Pulmonary Disease," by Dr. R. H. Kampmeier, Nashville.

"The Management of Cardiac Patients During Pregnancy," by Dr. David Strayhorn, Nashville.

"The Diagnosis and Treatment of Chronic Rheumatoid Arthritis," by Dr. Whitman Rowland, Memphis.

"Diseases of the Kidney," by Dr. J. B. McElroy, Memphis.

At 6:45 P.M. the society thoroughly enjoyed country ham, fried chicken, and fish in the Boyette Cafe.

The scientific program was unusually instructive. Forty members were present.

C. L. DENTON, *Secretary*.

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*Five-County Medical Society:*

The Hardin, Lawrence, Lewis, Perry, and Wayne Counties Medical Society met in Savannah, May 25.

The following papers were read: "Prota-mine Insulin," by Dr. Henry B. Gotten, Memphis. Discussed by Drs. Bartow M. Williams, Kendrick, Mississippi, and T. J. Stockard, Lawrenceburg.

"Review of Literature on Haemorrhagic Purpura," by Dr. Henry N. Moore, Savannah. Discussion by Drs. Dexter L. Wood, Waynesboro, and Paul Wylie, Hohenwald.

"Résumé of the Treatment of Syphilis," by Dr. Emmett R. Hall, Memphis. Discussion by Drs. W. E. Boyce, Flatwoods; Leo

Harris, Lawrenceburg; and J. W. Erwin, Savannah.

"Some Modern Questions on Legal Medicine," by Mr. A. M. Patterson, Savannah.

"Gall Bladder Diseases, with Special Reference to Medical Management," by Dr. Will T. Fitts, Jackson. Discussion by Drs. A. D. Cole, Loretto, and J. W. Frost, Linden.

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*Greene County:*

The Greene County Medical Society met June 1. Dr. C. B. Laughlin, Greeneville, presented a paper on "Pneumonia." Dr. W. T. Mathes, Greeneville, opened the discussion.

The following members were present: Drs. M. A. Blanton, H. B. Anderson, C. P. Fox, Sr., J. B. Bell, L. E. Coolidge, L. E. Dyer, J. T. Campbell, C. B. Laughlin, C. P. Fox, Jr., W. T. Mathes, I. E. Phillips, and R. B. Gibson.

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*Knox County:*

May 18—"Pyelitis of Pregnancy," by Dr. G. A. Williamson. Discussed by Drs. A. L. Rule, Richard McIllwaine, Andrew Smith, and Harry Jenkins.

May 25—"The Treatment of Acute Head Injuries with Special Reference to Compound Fractures and Penetrating Wounds of the Brain," by Dr. Cobb Pilcher, Nashville.

June 1—"Menorrhagia," by Dr. Edward S. Clayton. Discussion by Drs. Joe Raulston, Kyle Copenhaver, and G. G. Henson.

June 8—"Injection Treatment of Hemorrhoids," by Dr. J. M. Stockman. Discussed by Drs. Chas. Clayton, C. J. Carmichael, and Dewey Peters.

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*Sullivan-Johnson Counties Medical Society:*

The Sullivan and Johnson Counties Medical Society met at the Kingsport Inn on Wednesday, June 2. Program follows:

1. "Congenital Syphilis," by Dr. Mack Shanholtz. Discussion by Drs. T. R. Bowers and J. V. Hodge.

2. "Bacillary Dysentery," by Dr. T. B. Yancey. Discussion by Drs. A. K. Turner and F. L. Moore.

This was the last meeting before summer vacation.

T. R. BOWERS, *Secretary*.

#### *Washington County:*

The Washington County Medical Society met at the John Sevier Hotel, Johnson City, June 3. Dr. W. L. Poole read a paper on "The Use of Anti-Pneumococcic Serum." Discussion by Drs. Frank Holecek and W. J. Matthews.

## OTHER MEDICAL SOCIETIES

### VANDERBILT MEDICAL SOCIETY, MAY 7, 1937

1. "Some Experiences in Caring for Flood Refugees at Camp Peay, Tullahoma, Tennessee, by Dr. John R. Williams, Jr.

A summary was given of the problems that arose as regards sanitation and care of 2,300 Negro flood refugees at Camp Peay. Practically all of them had severe upper respiratory infections. A small epidemic of lobar pneumonia broke out. There were fifty-four cases, with fifteen deaths, only three of whom were under fifty-five years of age. In addition, there were forty-one cases of bronchopneumonia. It was shown how quickly the incidence of new cases decreased following the establishment of adequate sanitation and the elimination of overcrowding.

This paper was discussed by Drs. Hugh J. Morgan and W. S. Leathers.

2. "Sterilization of Obstetrical Patients in Vanderbilt University Hospital from 1925 to 1937," by Drs. G. S. McClellan and Lucius E. Burch.

A study of 100 obstetrical cases sterilized in Vanderbilt Hospital was made, with division into twelve groups classified on the basis of indications such as pulmonary tuberculosis, toxemia of pregnancy, cardiac lesions, pelvic and soft part abnormalities, previous Cesarean sections, etc. It was concluded that for sterilization the vaginal approach for operations on the tubes is preferable; that the Pomeroy-Lull method of ligation and partial excision is advised

both in abdominal and vaginal approach, because of its simplicity and effectiveness. The technique of operation was described. In a follow-up of the cases, it was found that pregnancy did not occur in eighty-nine per cent of the patients sterilized; five per cent could not be found; and six per cent had died in the interval from constitutional causes.

This paper was discussed by Drs. Hugh J. Morgan, H. E. Meleney, Sam C. Cowan, Frank Luton, Hollis Johnson, Tinsley Harrison, Bush Anderson, and Lucius E. Burch.

3. "Studies on Tissue Pressure in Human Subjects," by Drs. Herbert S. Wells and John B. Youmans.

Final cessation of filtration after prolonged quiet standing is due not only to concentration of the plasma proteins as previously shown, but also to a rise of intramuscular pressure to maximum values of fifty-five centimeters of water. Antifiltering forces of tissue pressure and osmotic pressure, therefore, are approximately in balance with the filtering force of about ninety centimeters of water exerted by the capillary pressure. Subcutaneous and intracutaneous pressures do not rise significantly during filtration. Hence, it is concluded that filtration occurs mainly into muscles, especially those like anterior tibial and soleus which are tightly covered with fascia, in which the highest pressures are developed.

This paper was discussed by Dr. John Youmans.

### MIDDLE TENNESSEE MEDICAL SOCIETY

On May 17 and 18 the Middle Tennessee Medical Society met in Clarksville. The attendance was good and the program was up to the usual high standard.

The following officers were elected for the coming term:

President—C. M. Hamilton, M.D., Nashville.

Vice-President — M. L. Hughes, M.D., Clarksville.

Secretary-Treasurer—D. W. Smith, M.D., Nashville.

## ABSTRACTS OF CURRENT LITERATURE

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

Obstetric Amnesia, Analgesia, and Anesthesia: Their Relationship to Sudden Death in Labor. Montgomery. *Journal of American Medical Association*, May 15, 1937.

In a study based on statistics covering a five-year period in Philadelphia, 1931 to 1935, inclusive, an effort was made to determine what part analgesia played. The author believes that the unwise selection of analgesic agents caused many otherwise preventable deaths.

In the selection of the proper anesthetic one must consider safety, analgesic and anesthetic properties, effect on contractions of the uterus, advantages and disadvantages in special cases, idiosyncrasy, constitutional effects, and effect on fetal respiration.

Deaths were noted that were caused by ether, nitrous oxide, ether given rectally, chloroform, barbiturates, and agents administered spinally. No deaths were attributable to the use of local anesthesia. Barbiturates were found not to be as free from danger as many reports indicate.

### OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.  
Suite 316 Doctors Building, Nashville

The Relationship Between Infected Urine and the Etiology of Pyelitis in Pregnancy. Charles M. McCane and H. F. Traut. *American Journal of Obstetrics and Gynecology*, 33: 828, May.

The objectives of this investigation were to determine: (1) The incidence and character of bacteriuria of the bladder as compared with that of the ureter in normal antenatal and postnatal women, and (2) the etiological significance of these to pyelitis of pregnancy.

It is generally believed that the urine of normal pregnant women near term is frequently infected with bacillus coli, occasionally with other microorganisms, and has been referred to by writers as "bacilluria of pregnancy."

Thirty normal gravid patients were followed with respect to the bacterial content of the urine obtained from the bladder and urethra at various stages of antenatal and puerperal periods. The authors found that colon bacillus infection of the urine of normal pregnant women is not as frequent as former reports indicate. The incidence of colibacilluria of the bladder was found to be 6.08 per cent, of the right ureter 0.86 per cent.

No evidence was found to substantiate the theory that the kidney excretes microorganisms during pregnancy. No support for the regurgitation theory as to the origin of uteritis was found. The view is expressed with some reservations that colon bacillus infection of the urinary tract in pregnant women probably occurs by way of the pelvic and abdominal lymphatic stream with transference of microorganisms from the large bowel to the vicinity of the kidney and ureter.

A Study of Dermoid Cysts with a Suggestion as to the Use of X-ray in Diagnosis. Morris Glass, A. H. Rosenthal. *American Journal of Obstetrics and Gynecology*, 33: 813, May.

Among five hundred consecutive ovarian neoplasms removed at the Long Island College Hospital from 1923 to 1936 seventy-nine or 15.8 per cent were dermoid cysts. Eighty-two per cent of this group occurred between the third and the fourth decades of life.

The right ovary was the site of the new growth in thirty-three instances, the left in thirty-four. Both sides were involved in fourteen or 17.7 per cent.

The diagnosis of dermoid cyst is rarely made (Counseller). In reviewing the literature one is impressed by the varying opinions concerning symptoms produced by these neoplasms. Lynch attributes little significance to the symptoms of dermoids, stating that "symptoms might be slight or absent, though occasionally the patient may sense a weight in the pelvis or complain of bladder or rectal discomfort."

In this group of seventy-nine cases dermoid cyst was diagnosed preoperatively seven times and in one this was the result of X-ray examination. In spite of all that is said to the contrary a correct preoperative diagnosis should be made more frequently. Several points aiding diagnosis are discussed by the author.

Teeth or bone were encountered in thirty-nine or 49.4 per cent of cases. Had X-ray been used more frequently a high percentage of these tumors could have been diagnosed before operation.

### OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
Doctors Building, Nashville

Postoperative Distress in Cases of Senile Cataract. W. H. McMullen. *Archives of Ophthalmology*, May, 1937.

McMullen states that postoperative distress in cases of senile cataract is partly physical and partly mental and that the physical and mental factors react one on the other. The physical causes are pain in the back and abdominal discomfort, usually associated with flatulence. The causes of the pain and distress are discussed. A specially designed mattress with a cushion beneath the small



of the back and a pillow beneath the knees may delay the onset and lessen the severity of the pain in the back. The author has found it impossible to prevent or relieve the pain in many cases so long as the patient is kept flat on the back. The abdominal pain and flatulence may be relieved by diet and drugs, but no measure is so effective as permitting the patient to be propped up in bed at an early stage and to be turned on his side and allowed to draw up his knees.

To relieve mental distress the patient should be brought to the operating room in as confident and optimistic a mood as possible. Any technic which unnecessarily prolongs the operation should be avoided.

Two chief causes of postoperative mental distress are immobility and the binocular bandage. Restraint is unnecessary if the eyes are well shaded and a watchful nurse is employed. A binocular dressing is applied for at least two or three days unless the patient finds it very trying, mental derangement occurs or conjunctivitis develops, in which case only the eye that was operated on is bandaged, and a flap of gauze is placed over the other eye, which the patient can lift when desired. If no complications arise the patient is kept in bed only two or three days.

### OTOLOGY, LARYNGOLOGY, RHINOLOGY

By W. W. POTTER, M.D.  
Medical Building, Knoxville

Septic Thrombophlebitis of the Lateral Sinus with Metastases. The Eye, Ear, Nose, and Throat Monthly, May, 1937.

A review of the otological literature published during the past ten years reveals thirty cases of lateral sinus thrombosis with only three mortalities. This is surprising when one remembers that the mortalities in this disease have been estimated at fifty per cent in all cases.

Hooper recognized this condition in 1826 and Zaufal was first to ligate the jugular vein for this infection in 1880.

Cases of metastases occur, usually, in children. There is a slowing of the blood stream, a trauma to the endothelial lining of the venous channel, and the presence of pathogenic microorganisms for the production of a septic thrombus in these vessels. The infection extends from the original focus to the vessel by a contiguity of tissue, or a thrombus of a small vein in the vicinity of the infected focus may extend into the lumen of the larger vessel. The first is the obliterating, and the second the parietal thrombus.

The author points out the difficulties in making the diagnosis in these cases, particularly when both ears are involved.

Blood cultures should always be taken, but one should not be surprised at a negative report. He

suggests that these cultures be taken when the temperature is at its maximum and careful technique be followed to prevent contamination.

The symptoms of this condition in infants simulates those in meningitis. Optic neuritis may accompany this condition.

The treatment of septic thrombophlebitis is surgical. Practically all unoperated cases terminate fatally. Following a complete mastoidectomy with exposure of the lateral sinus, the diagnosis being evident, most operators do a simple ligation of the internal jugular, removing all clots from the sinus.

Blood transfusions with whole blood and repeated as indicated, also intravenous injection of mercurochrome, are recommended by the author. He reports three very interesting cases.

In concluding the article the author stresses the importance of blood cultures as a diagnostic aid, but says too much dependence must not be put in a negative report, as over fifty per cent of the diagnosed cases show negative growth after repeated cultures.

### PEDIATRICS

By JOHN M. LEE, M.D.  
Doctors Building, Nashville

Fulminant Streptococcal Sepsis in Infancy. John Mott Rector, M.D., San Francisco, California. The Journal of Pediatrics, May, 1937.

The beta hemolytic streptococcus is most often the cause for an overwhelming sepsis in infancy. The author reports clinicopathologic study of eight cases of a particularly lethal type of this infection. In these cases death followed so quickly after onset of bacteremia that localizing signs referable to individual organs rarely had time to appear.

The age of greatest susceptibility to this infection appeared to be from four to seven months. At this age, and in prematures especially, immunity to sepsis is at the minimum. In six of the eight cases observed active rickets was present. While the most common atriun is through the pharynx and sinuses, the infection may enter by way of the gastrointestinal or genitourinary tracts or other portals, and demonstration of a primary focus is not always possible.

Quite uniformly the pathologic changes observed are early bronchopneumonia of the interstitial type, extensive cerebral edema, edema of the optic nerve and spinal cord, petechial hemorrhages in the viscera, microscopic venous thrombi, and toxic changes in the spleen and lymph nodes. Culture of the heart's blood shows the beta hemolytic streptococcus.

The onset of an apparently critical illness may be preceded by a vague history of irritability, restlessness, anorexia, and fever with occasional vomiting or mild diarrhea. This is followed by hyperpyrexia, meningismus, profuse diarrhea, pharyn-

gitis, and uncontrollable convulsions, occurring either singly or in combination, with the other usual evidences of severe infection. Petechia of the skin may be present. The duration of illness in the author's cases varied from one to six days, the average being sixty hours. Farber cites two cases of sudden death in infants that had been diagnosed "thymic death." In each case autopsy showed overwhelming sepsis and hemolytic streptococcus in the heart's blood.

The diagnosis of this condition is made difficult by the protean symptomatology and lack of physical signs. A profuse diarrhea might suggest acute bacillary dysentery, and the case with petechiae and meningismus and convulsions is readily confused with meningococcic meningitis. In a critically ill infant having convulsions that are not controlled by sedatives, and a normal spinal fluid, acute sepsis should be considered. While a positive blood culture is the best confirmatory evidence, this may not be obtained during life, and an embarrassing number of these cases will not be diagnosed until the case comes to autopsy.

Histories of two fatal cases are given.

### ROENTGENOLOGY

By FRANKLIN B. BOGART, M.D.  
Medical Arts Building, Chattanooga

Radiation Treatment of Hypertrophied Lymphoid Tissue of the Pharynx and Nasopharynx. Robert J. Reeves. American Journal of Roentgenology and Radium Therapy, Vol. 37, No. 4, p. 511, April, 1937.

The recent literature is briefly reviewed. Most of this literature deals with the treatment of tonsil which is not the exact subject here considered. The author concurs in the opinion expressed by others that in the case of tonsils surgery is indicated where there is obvious infection in contract to simple lymphoid hyperplasia.

The present report deals with those cases in which there is hyperplasia of the nonencapsulated lymphoid tissue which is scattered over the entire posterior and lateral walls of the pharynx. These follicles vary in size from a few millimeters to one centimeter in diameter and are usually infected with mixed organisms. The patient complains of recurrent acute flare-ups, frequent colds, excess mucoid discharge, postnasal dripping, cough, and occasionally gastric irritation. In some cases systematic disorders can be traced to these focally-infected areas.

Over a six-year period 300 cases have received radiation treatment. One hundred eighty-nine of these cases completed their treatment. Many others were referred to radiologists in other locations for completion of their treatment. All but two of these cases had previously had their tonsils removed. While a detail follow-up report will be published later, favorable results are reported in a majority of the group.

The dose consisted of 100r delivered to each side of the neck at weekly intervals, three to six doses. Moderate voltage was used; 100 Kv., constant potential, five ma., 25 cm. distance, three mm. Al. filter. The immediate reaction is a sense of dryness in the mouth and throat and slight congestion and swelling of the cervical lymph nodes.

ABSTRACTOR'S NOTE: This is another example of the therapeutic application of Roentgen ray in lesions characterized by inflammation of lymphoid hyperplasia. The essential features of treating those lesions are the same; that is, small doses, varying from sixty to 120r which is administered at intervals of a few days to a week until four to nine doses have been given. The dose is very small and precludes the possibility of any undesirable effects. The use of these methods will produce gratifying results.

### SURGERY—GENERAL AND ABDOMINAL

By BATTLE MALONE, II, M.D.  
1400 Monroe Avenue, Memphis

The Rationale of the Tannic Acid-Silver Nitrate Treatment of Burns. A. G. Bettman, M. D., Portland, Oregon. Journal of American Medical Association, Vol. 108, May 1, 1937.

The author gives several reasons why this method is superior to other methods which are as follows:

1. The saving of lives that would be lost through the slower method of tanning.
2. The immediate stopping of the loss of body fluids, thereby preventing the consequent concentration of the blood.
3. The immediate prevention or very definite minimizing of shock.
4. The immediate prevention of the absorption of toxic products.
5. The prevention of infection by the short period of application of moisture and the early drying of the tanned tissues.
6. The saving of the kidneys and other organs from the effects of fluid concentration and the absorption of toxins and infection.
7. The greater comfort of the patient.
8. The fact that the patient is carried safely past the first twenty-four hours, the most critical period following a serious burn.
9. The fact that the patient avoids the second critical period, that of infection and late absorption of toxic products.
10. The simplification of the nursing problem, especially in the first twenty-four hours.
11. The prevention of further breaking down of tissues, resulting from long application of wet dressings.
12. The prevention of chilling, resulting from the long application of cold, wet dressings.
13. The formation of a thin, flexible coagulum.

14. The speedy healing of the burned areas with a shortened period of hospitalization.
15. The prevention or minimizing of heavy contracting scars by early rapid healing in the absence of infection.
16. The lessening of the amount of skin grafting and secondary corrective surgery.

The continuous oozing from a burned skin surface is checked immediately. The amount of all body fluids is rapidly reduced unless this serum loss is checked. There is also an early pouring out of circulating body fluids into the tissues adjacent to the thermal injury. This has been proved by animal experiments. The average loss of circulating body fluids following a severe burn was found to be 2.1 per cent of the total body weight. However, when the traumatized area is treated at once by the application of tannic acid followed by silver nitrate, all the destroyed and injured tissue down to the very border line of impaired cells are picked up and fixed in an innocuous, nonabsorbable coagulum.

Practically applying the animal experiments it is shown that in a 155-pound man the total amount of circulating body fluids is about sixty per cent of the calculated blood volume or 7.2 pounds. The loss of 2.1 per cent of the total body weight would be three and one-quarter pounds. Thus is lost between forty and fifty per cent of the entire fluid portion of the blood.

With this treatment the temperature usually does not rise above 101 Fahrenheit, the red cell count remains nearly normal, and there is no urinary suppression or albuminuria. The hospital stay is reduced greatly by this method of treatment.

The technique of the tannic acid-silver nitrate treatment is as follows: The patient is given a narcotic which is repeated when necessary. Fluids are forced throughout. Grease and oil in any form should not be used. If such an application has been made it must be removed with benzine or ether. All blebs are opened and all loose skin and other burned tissue removed. Five per cent tannic acid is applied with cotton swabs. Following this ten per cent silver nitrate is applied in the same manner. The patient is placed in a tent heated by electric bulbs. In a few days the coagulum loosens and comes away leaving large areas, and not infrequently all the burned surfaces is entirely healed. Unhealed areas are treated with scarlet R gauze.

### SYPHILOLOGY

By E. G. CLARK, M.D.

Tennessee Department of Public Health  
Nashville

Cooperative Clinical Studies in the Treatment of Syphilis: Asymptomatic Neurosyphilis. O'Leary, Cole, Moore, Stokes, Wile, Parran, Vonderlehr. *Archives: Dermatology and Syphilology*, 35: 387, 1937.

This is another of the surveys made by the fore-

most clinics of the country cooperating with the United States Public Health Service. Asymptomatic neurosyphilis is defined as a type of neurosyphilis characterized by a positive reaction of the spinal fluid, but in which there are neither objective nor subjective symptoms of involvement of the central nervous system. It is the precursor of clinical forms of neurosyphilis. The spinal fluid was examined in 5,293 cases of the 75,000 collected. Of these 46.6 per cent were normal, 39.9 per cent showed clinical signs of neurosyphilis and 13.5 per cent were asymptomatic neurosyphilis.

An immediate cell count, a complement fixation and a colloidal gold or mastic test is advised. In early syphilis a spinal fluid examination should be made by the sixth month. Contrary to previous advice by individual members of this group, it is now advised to do another spinal fluid examination before the patient is placed on parole. Previously, it was said that if once negative the spinal fluid remained negative, if treatment was continued to fulfill the criteria of cure. If, however, in late latent syphilis (more than four years' duration) the test is found to be negative, ninety-nine per cent of the time it will remain negative.

The highest incidence of asymptomatic neurosyphilis cures was found in individuals who had had continuous treatment, the lowest in irregularly treated persons. In patients with early syphilis who were treated, on whom a positive spinal fluid was found, 30.9 per cent had a negative blood test, twenty-two per cent of those with latent syphilis who were treated. "Hence it is to be emphasized that in cases of latent syphilis, the Wassermann reaction of the blood, be it either positive or negative, does not indicate the status of the spinal fluid; whereas, in cases of early syphilis, seventy-four per cent of the patients with persistently positive reactions of the blood had an associated neurosyphilis."

### TREATMENT

Taking into account all methods of treatment, intraspinal, tryparsamide, and malaria, it was found that complete and permanent serological negativity was produced in 64.4 per cent of the 565 patients treated for asymptomatic neurosyphilis. The majority of these reversals had taken place by the fifth year of treatment. Routine therapy combined with intraspinal therapy accomplished considerably more than routine combined with tryparsamide therapy. Clinical progression may occur in a patient with asymptomatic neurosyphilis, even though the spinal fluid has become normal. Of patients showing early signs of clinical progression, 25.8 per cent were reported to have normal spinal fluid.

This is a very good survey of a large number of cases of asymptomatic neurosyphilis and brings out a number of new ideas. The full report of



the study appears in Venereal Disease Information for March, 1937.

### UROLOGY

By TOM R. BARRY, M.D., F.A.C.S.  
By G. A. WILLIAMSON, JR., M.D.  
Medical Building, Knoxville

Involvement of the Upper Part of the Urinary Tract Associated with Uterine and Ovarian Tumors. Harold L. Morris and Valeria R. Juracek. *Journal of Urology*, Vol. 37, No. 4, April, 1937.

These authors summarize the literature on this subject up to date, and find that all who have investigated the subject agree in general that tumors of the organs of the female pelvis cause dilatation of the upper urinary tract, although of less degree than is found in pregnancy.

In the present study, examination of the upper urinary tract was carried out on forty-three consecutive women who had tumors arising from the uterus or pelvic adnexae. These cases were all cystoscoped. Some had retrograde pyelograms, others intravenous pyelograms, while some had both.

The youngest patient was fourteen years of age, and the oldest seventy years of age. The average age was 37.07 years. Eighty-six per cent were married, and thirty per cent had never been pregnant. In most cases the tumor had been known to be present from one to three years. Fifty-five per cent complained of symptoms referable to the bladder, and twenty-one per cent of symptoms referable to the upper urinary tract. The tumors rose above the umbilicus in sixteen cases, and lay between the symphysis pubis and the umbilicus in twenty-five cases. Two tumors could not be palpated.

In twenty-five cases there was ureteral dilatation of grade two or more. The right side was involved in twelve, the left in thirteen cases, and bilateral in three.

Because of the large percentage of cases showing upper urinary tract pathology, this author is of the opinion that all cases with uterine or adnexal tumors should have a complete urological survey.

### BOOK REVIEW

Operative Surgery. J. Shelton Horsley, M.D., and Isaac A. Bigger, M.D.

This work is a general surgery concisely written in a well-worded style, easily read. Much effort has been expended on this fourth edition of a book which first appeared in 1921. The plan is entirely different, for in writing the original volume sixteen years ago, Dr. Horsley felt competent to treat of all types of surgery. "In recent years, the specialties in surgery have become so elaborate that it would be impossible for any general surgeon to keep abreast with all of them. Therefore, regardless of the wishes of the general surgeon, much of the work previously done by him naturally gravitates to the various specialists." With this revision he felt it expedient to entrust the several fields of surgery to leaders in each field.

The chapters by J. S. Horsley, M.D., on gastrointestinal surgery are comprehensive and worthy of the author, a Southern surgeon and teacher of wide and long experience in this field.

Dr. Isaac A. Bigger, professor of surgery in the Medical College of Virginia, writes on surgery of the neck, thorax, breast, hernia, sympathetic nervous system and some operations on the extremities. These chapters reflect the ability and experience of the teacher-author in depicting the latest work in relatively new fields.

Dr. C. C. Coleman, professor of neurological surgery in the Virginia institution, writes on surgery of the central nervous system and cranial nerves. Dr. A. I. Dodson, professor of urology at the same college, discusses urologic surgery; Dr. J. S. Horsley, Jr., assistant professor of surgery at the Virginia college, writes on plastic surgery; Dr. D. M. Faulkner, orthopedist to Memorial Hospital in Richmond, presents orthopedic surgery, while Guy M. Horsley, M.D., handled the chapter on proctologic surgery. There are five hundred new illustrations by Miss Helen Lorraine and they are uniformly good.

There are two volumes in this edition published by the C. V. Mosby Company at the price of fifteen dollars.

C. S. McMURRAY, M.D.

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# THE JOURNAL

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No. 7

### TREATMENT AS A FACTOR IN THE CONTROL OF SYPHILIS\*

E. GURNEY CLARK, M.D., Nashville

**B**EFORE any problem is discussed, it seems advisable to define its extent and give reasons for and importance of the phase under discussion. It is a generally accepted fact that syphilis is a real problem, and we are all aware of the multitude of factors that enter into its control. Just what is the extent of this problem in the state of Tennessee?

In 1936, according to morbidity reports, syphilis, with 6,869 cases, was the most prevalent of our communicable diseases with the exception of influenza, which led by only 300 cases. There were more than twice as many cases of syphilis as of tuberculosis, twice as many as of pneumonia, four times as much as scarlet fever, six times more than diphtheria, and eighteen times as much as poliomyelitis. As a matter of fact, in the age group under twenty, there were 448 more cases of syphilis than of poliomyelitis, and this was our greatest poliomyelitis epidemic year. Further, there was more syphilis reported than tuberculosis, scarlet fever, diphtheria, and infantile paralysis combined.

These 6,869 cases represent reports from the state as a whole to the state department of health at Nashville. Ninety-seven per cent of them came from counties and cities having full-time health units. However, thirty-three per cent of our popula-

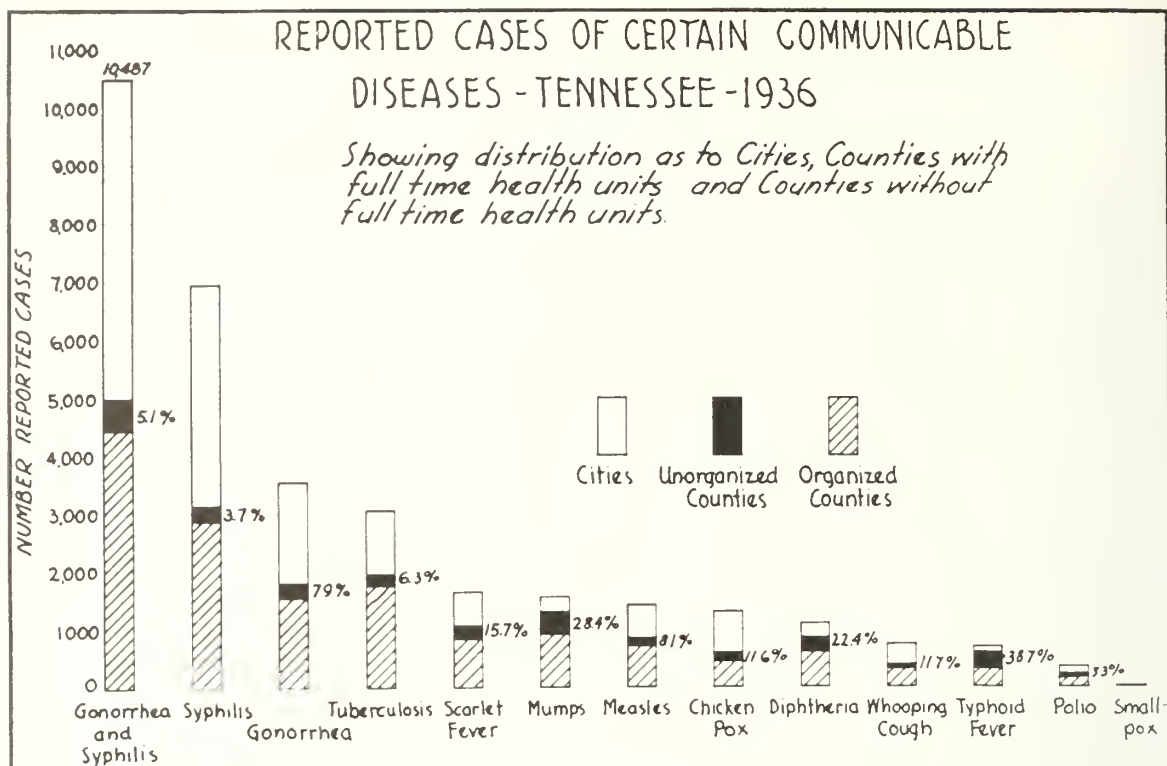
tion live in areas not served by organized health units, and only 3.7 per cent of the total reports of syphilis (259 cases) came from these areas containing 904,513 people. Slide No. 1 shows graphically the relative prevalence of various communicable diseases in Tennessee in 1936. This same relationship is borne out in the registration area as a whole.

To obtain information concerning the prevalence of syphilis in Memphis, a questionnaire was recently sent to all physicians. Of the 234 who replied, 164 or seventy per cent indicated that they were treating syphilis. From this survey it was estimated that in the city of Memphis there were some 4,000 cases of syphilis in 1936 that had not been reported. The same probably holds true in the remainder of the state. If these 4,000 from Memphis and the corresponding number from other sections were reported, how different would the total be—how much more clearly would we see the extent of our problem.

In the United States the incidence of fresh infections occurring annually is approximately four per 1,000. The highest incidence is between the ages of sixteen and thirty. If such is the case in Tennessee, we have some 10,800 new infections annually, each capable of infecting many more in the years to come.

When diagnosis of syphilis has been established, and the patient has recovered from the shock of hearing it, his first ques-

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.



SLIDE NO. 1

tion will deal with the possibility of cure and the likelihood of ultimate disaster. These questions cannot be intelligently answered nor the patient intelligently treated unless the physician has a clear idea, first, as to what is meant by the use of the word "cure" and, second, of the probable developments in the event of no treatment or of poor treatment or of good treatment.

"Cure" in syphilis is susceptible of three interpretations. Biologic "cure"—the eradication from the body of the last remaining treponema. Symptomatic "cure"—all symptoms and signs gone, and the patient is well and incapable of transmitting the disease. Serologic "cure"—blood and spinal fluid tests become and remain negative. These conditions are not synonymous. It is reasonable to assume that serological and symptomatic cure takes place when there is biologic cure. Symptomatic cure, however, may and probably often does occur when biologic cure cannot be accomplished. The patient is then left with foci of organisms somewhere in the body, sometimes even with positive serologic evidence of per-

sistent infection, yet he remains well so far as syphilis is concerned for the remainder of his life. Serologic "cure," however, is not necessarily identical with either of the other two, serologic negativity being sometimes, though not usually, compatible with clinical and pathological progression.

There are three criteria of cure. First, the debatable standard of reinfection which certainly offers no consolation to the patient. The second, or necropsy evidence, is also of very little satisfaction to the sufferers. The third is the evidence afforded by the passage of time. All cases should be observed closely for a year after treatment has stopped and at intervals of six months to a year for the rest of life.

Each case of syphilis is a separate therapeutic problem, but we may, in order to facilitate discussion and to set up some standards of treatment, divide it into certain stages.

First, we may divide syphilis into early and late, calling all cases early which have had their infection for four years or less and late those whose infection has been



present for more than four years. Certainly these two periods must be defined in some greater detail, and a definition of latency must be established. A person may be said to have latent syphilis when the positive serologic test is the only evidence of the infection. This diagnosis must be questioned if examination has not been done to exclude cardiovascular (X-ray) and central nervous system syphilis (lumbar puncture) which certainly are tertiary and not latent. We speak of early latency (infection less than four years and no clinical manifestations) and late latency (infection more than four years and no clinical manifestations after diligent search). Thus, under early syphilis we have the divisions (as shown in Table No. 1), seronegative primary, seropositive primary, early secondary, and secondary recurrent, and early latent. The "late" division includes late latent and the so-called tertiary state—benign late, cardiovascular, and central nervous system. Congenital syphilis also is classified as early and late.

TABLE NO. 1  
CLASSIFICATION

#### A. EARLY SYPHILIS:

1. Primary—Seronegative. Only when lesion (chancre) is present.
2. Primary—Seropositive. Only when lesion is present.
3. Secondary. Only when lesion is present.
  - a. Rash.
  - b. Alopecia.
  - c. Mucus patches.
  - d. Condylomata, etc.
4. Secondary Recurrent—Lesion present, returning after insufficient treatment or none.
5. Latent (early)—Infection less than four years' duration. No lesion in heart or nervous system. Blood test only sign of syphilis (except history).

#### B. LATE SYPHILIS:

1. Latent (late)—Duration four years or more—no sign or symptom of central nervous system or cardiovascular. Blood test only indication.
2. Tertiary Syphilis—Only when some sign or symptom of late manifestation is present.
  - a. Cardiovascular.
  - b. Central nervous system.
  - c. Bone syphilis.
  - d. Gumma.
  - e. Late ulcers.
  - f. Any late manifestation.

#### C. CONGENITAL SYPHILIS:

1. Early—first two years.
2. Late—after two years.

The aims of treatment in early syphilis are: first, the prevention of transmission of the disease, and second, the cure of the patient. An evaluation of treatment methods by two independent agencies, the clinical cooperative group in cooperation with the United States Public Health Service, and the League of Nations health inquiry has definitely established the value of certain broad principles, as follows:

- (1) Treatment must be continuous. No rest period of any kind until treatment is finished.
- (2) Treatment must be prolonged to a minimum of fifteen to eighteen months regardless of the state of the serological reaction at the time of diagnosis or its progress during treatment.
- (3) For the control of infectious relapse, a minimum of twenty injections (each) of an arsphenamine and a heavy metal are essential.
- (4) For the accomplishment of individual cure, a minimum of thirty injections of an arsphenamine and forty of a heavy metal are desirable.
- (5) Lifelong post treatment observation with periodic reexamination is essential to determine the fact of cure.

An outline of treatment which fulfills these qualifications has been proposed by the clinical cooperative group on the basis of a study of more than 6,000 patients with early syphilis.

The slide shows the dosage if old arsphenamine is used. If neoarsphenamine is used, six-tenths of a gram doses should be used for ten weeks for the first course. We see here five courses of an arsenical and five of a heavy metal, the latter increasing so that the last course consists of ten doses. It is safer to finish with a heavy metal than with an arsphenamine. Treatment of same type must be continued if the spinal fluid is positive.

The disaster that follows inadequate treatment is shown in Slide No. 2. Muc-

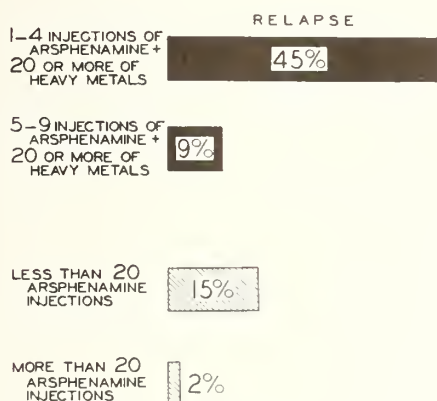
TABLE NO. 2  
A SCHEME OF TREATMENT FOR EARLY SYPHILIS

<i>Day or Week</i>	<i>Arsphen-amine</i>	<i>Interim treatment</i>	<i>Blood Wassermann reaction</i>	<i>Remarks</i>
Day				Arsphenamine dosage for first three injections at level of 0.1 gram for each twenty-five pounds body weight. Average subsequent dosage, 0.4 gram men; 0.3 gram women. In average patient all lesions heal rapidly and blood Wassermann reaction becomes negative during first course. If arsphenamine cannot be used, substitute eight to ten doses 0.3 gram silver arsphenamine, or ten to twelve maximum doses 0.6 gram neoarsphenamine. This applies also to subsequent courses.
1	0.3-0.6		1	
5	0.3-0.6			
10	0.3-0.6			
Week				
3	0.4			
4	0.4			
5	0.4			
6	0.4			
7	0.4		1	If mercury is used note overlap of one week at end of first and start of second arsphenamine courses. No overlaps necessary with bismuth. At this point a few days without treatment may be dangerous. Neurorecurrence.
8		Bismuth, 4 doses,		
9		0.2 gram and		
10		K. I., or Ung.		
11		Hg. and K. I.		
12	0.4		1	Arsphenamine starts, bismuth stops. Watch for provocative Wassermann reaction after first dose of arsphenamine.
13	0.4		1	Try to prevent short lapses in treatment, especially at this early stage.
14	0.4			
15	0.4			
16	0.4			
17	0.4		1	
18-23		Bismuth, 6 doses or Ung. Hg. and K. I.		Bismuth is better than mercury. Use it if possible. Examine cerebrospinal fluid routinely at about this time.
24	0.4			
25	0.4			
26	0.4			
27	0.4			
28	0.4			
29	0.4			
30-37		Bismuth, 8 doses or Hg. and K. I.		
38	0.4		1	
39	0.4			
40	0.4			
41	0.4			
42	0.4			
43	0.4		1	Patients with seronegative primary syphilis may cease treatment here, if blood Wassermann reaction has always been negative.
44-53		Bismuth, 10 doses or Ung. Hg. and K. I.		Note that bismuth or mercury courses are gradually getting longer—four, six, eight, and now ten weeks.
54	0.4		1	
55	0.4			
56	0.4			The average seropositive primary or early secondary patient should have at least five courses of arsphenamine.
57	0.4			
58	0.4			
59	0.4		1	
60-69		Bismuth, 10 doses or Ung. Hg. and K. I.		It is safer to finish treatment with bismuth or mercury rather than with arsphenamine.
70-122	(1)	No treatment	6-12	Blood Wassermann every month if possible, at least every other month.

123 Complete physical and neurologic examination, spinal puncture, and if possible, fluoroscopic examination of cardiovascular stripe.

Thereafter, yearly physical examination, blood Wassermann every six to twelve months. If the two spinal fluid examinations above are negative, this need not be repeated.

# RELATION OF ARSPHENAMINE TREATMENT TO THE PREVENTION OF MUCOCUTANEOUS RELAPSE



Arsphenamine is the PREVENTOR of mucocutaneous (infectious) relapse

SLIDE NO. 2

cutaneous relapse occurs in forty-five per cent of persons with early syphilis who have from one to four injections of an arsenical even though they have had twenty or more injections of a heavy metal. This number of infectious relapses decreases to a minimum of two per cent when twenty or more injections are given. Probably the great majority of patients receive from five to nine injections and almost one out of ten becomes infectious again. It has been demonstrated by the clinical cooperative group that about seventy per cent of these recurrent lesions are extragenital. The person who is inadequately treated, then, who has a recurrence, is more dangerous from an extragenital point of view than otherwise.

By adequate treatment, the chance of developing cardiovascular syphilis is reduced from forty-five per cent to four per cent, and neurosyphilis from twenty-five per cent to six per cent. The economic importance of this is apparent when we realize that about eighteen per cent of our heart disease is due to syphilis and that in 1934-1936 15.2 per cent of the admissions to our

state institutions for mental diseases were because of syphilis of the brain.

Treatment methods generally in use are: (1) the *continuous* with alternating courses of an arsenical and a heavy metal with no rest period; (2) the *intermittent* with an arsenical or heavy metal interrupted by rest periods of a month or more; (3) irregular with an arsenical or heavy metal or both entirely irregular; and (4) the *intensive* with an arsenical or heavy metal or both, three to four arsenical injections in three to eight days alternating with heavy metal courses of four to eight weeks with purposeful rest periods.

A comparison of the effectiveness of treatment methods in securing Wassermann reversal in one year is shown by a clinical cooperative group study. With continuous treatment in early syphilis eighty-two per cent of the cases show reversal in one year; with intermittent, thirty-seven per cent; and with irregular, five per cent.

A certain number of individuals will have a persistently positive Wassermann regardless of the amount of treatment given. In early syphilis, after continuous treatment for six months, a persistently positive Wassermann is strongly indicative of central nervous system involvement. However, after spinal puncture is done and is found to be negative, the individual who has the maximum advised treatment and continues with a positive blood serological test is in no more danger of clinical relapse than is the person with a negative Wassermann.\*

The important thing, then, is to treat an individual by the calendar and not by the laboratory findings. He should have the maximum number of treatments regardless of the outcome of his serological reactions. Twenty injections (each) of an arsenical and bismuth reduce infectious relapse, but it takes more to cure the individual of his disease.

The treatment of latent syphilis cannot be entirely standardized because of several factors. For a standard treatment proce-

\*If the positive serological test represents a relapse and the spinal test was done previously, another test is indicated. For recent study, see Ven. Dis. Inf., March, 1937 C. C. Group.



ture an accurate diagnosis of latency is essential (this presupposes a careful clinical and laboratory study to determine the absence of lesions of syphilis, particularly cardiovascular and neurosyphilis). The presence of complicating diseases and the patient's age and life expectancy are also important factors.

The aim of treatment is to increase the probability of cure or arrest and to decrease the probability of clinical progress or relapse; and in addition, in sexually active younger persons, to control potential infectiousness, and in the case of women, to protect the unborn child. By means of treatment, clinical progression can be reduced from the inevitable twenty to thirty per cent to from two to five per cent. Neoarsphenamine is as satisfactory as arsphenamine, and the necessity for continuous treatment is not so great as in early syphilis. The studies of the clinical cooperative group have shown that in latent syphilis maximum results are obtainable with about twenty injections of an arsphenamine combined with a large amount of a heavy metal, the latter prolonged over long periods of time.

A suggested outline of treatment of latent syphilis approved by the clinical cooperative group is as follows:

- (1) Complete and thorough physical examination (to prove latency).
- (2) Routine test of spinal fluid before starting treatment or as soon thereafter as possible (essential to rule out neurosyphilis).
- (3) If early latency (less than four years), use the outline of treatment for early syphilis. Treatment must be continuous.
- (4) If late latency (more than four years' duration), for the first year alternating courses of neoarsphenamine and bismuth, including a total of three courses of neoarsphenamine of eight injections each, in dosage 0.45 to 0.6 grams; separated by three courses of an insoluble salt of bismuth, ten to twelve injections each, in dosage of 0.2 grams. During the second year, two courses of bismuth

of twelve injections each separated by rest periods of approximately three months. This provides for a little over a year of continuous treatment, during which a minimum of twenty-four doses of neoarsphenamine (to control infectiousness) and fifty to sixty doses of bismuth are given. Rest periods are not forbidden, but should be limited to latter half of the treatment. This amount of treatment should be given regardless of serologic progress. Wassermann fastness is common.

On completion of treatment the patient should be followed with periodic physical and laboratory examinations at yearly or biyearly intervals for the remainder of his life.

Each person with tertiary or late syphilis is a law unto himself. No definite procedures can be laid down. The use of fever therapy, malaria, tryparsamide, and subdural treatment should be in the hands of specialists or under the direct consultation service of those who have the experience and the facilities to carry them out.

The standardization of treatment in the prevention of prenatal syphilis depends entirely upon the time diagnosis is made and treatment instituted. The untreated pregnant syphilitic will give birth to diseased children four times out of five. With a minimum of twenty weeks of treatment with an arsphenamine and a heavy metal given concurrently or in courses, this figure is entirely reversed.

Four distinct steps are essential with the mutual efforts of the public health authority, the social and medical organizations devoted to maternal and child welfare, and the medical profession as a whole. These are:

- (1) The adoption of a routine serologic test for syphilis in every pregnant woman by every prenatal and obstetric clinic, every physician, and every midwife in the county. This is obligatory that syphilis may be recognized.
- (2) Systematic education of women to report to physicians or prenatal clin-

ics for prenatal care earlier in pregnancy than is now the average case. This is obligatory that treatment of the pregnant syphilitic mother may be started early enough to insure a healthy baby.

- (3) Elimination of the delay of many days or weeks which now often occurs between the diagnosis of syphilis and the institution of treatment in pregnant syphilitic women. This is obligatory to insure a healthy baby.
- (4) Better application by physicians of the several methods of recognizing the presence or absence of congenital syphilis in the infant—cord Wassermann, X-ray, pediatric, and serologic follow-up, especially intensive in the first few months of life. This is obligatory so that when treatment of the mother has failed to protect the child through failure of diagnosis, delay in starting, or neglect of treatment, the syphilitic baby shall be given the excellent chance of cure which early adequate treatment provides.

We can absolutely stamp out congenital syphilis. In the past six years, 379 children under fifteen years of age have died as a result of syphilis, 346 of whom were under one year of age. What of those remaining, the blind, the feeble-minded, the paralyzed, the insane, the stigmatized? The toll of infantile paralysis was one-third of that of syphilis in the child under fifteen years of age during this same period of time.

"Every syphilitic baby is a failure of maternal education, of the public health authority, and of the medical profession which should cause us all to blush with shame."

The state department of health is at the present time trying to work out some type of program that will assist all agencies concerned in control of syphilis. A full-time consultant has been employed, and it is hoped that personnel in this field may soon be increased; and that a plan for the distribution of antisiphilitic drugs as well as one for giving diagnostic and epidemio-

logical assistance to physicians may be worked out.

There has been a great demand for education along this line among the laity. It is the policy of this department to conduct this phase of the program under the guidance of the local medical profession. Finally, the venereal disease section of the state department of health exists for the service it can render the medical profession in the control of gonorrhea and syphilis and welcomes every opportunity to render this service.

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#### DISCUSSION

DR. C. H. MARSHALL (Memphis): Mr. Chairman and Members of the Association: I believe we have finally gotten on the right road toward the eradication of syphilis, certainly to a marked reduction in the number of cases. The publicity that syphilis has gotten in our lay newspapers and magazines recently has been a big help in this campaign. Taking the word "syphilis" out of our medical literature and putting it on the front pages of our newspapers where it can be seen and discussed by everyone is an essential, necessary step. The United States Department of Health and our state boards of health and our local organizations are to be complimented on this publicity and the work they are doing.

Dr. Clark covered his subject very completely. I doubt if there is anything I can add in the way of treatment of syphilis. There may be a few points that he would like to have emphasized. He discussed the two forms of therapy, the European intermittent form, and the American continuous form of therapy. The clinical cooperative group in America that has studied and is still studying the disease very carefully has pretty conclusively proven that the continuous form of therapy is by far the most effective; there are less relapses; the Wassermann reaction is reversed to negative in a greater percentage of cases, and more quickly; there are fewer cases of cardiovascular complications and complications of the central nervous system.

The objection has been raised that in the continuous form of therapy more reactions from the treatment may result because of no rest periods, but this probably does not occur. Dr. Stokes, who is a member of the clinical cooperative group, in the last Archives of Dermatology and Syphilology, discussed this point and states that there is no difference in severe reactions in the two forms of therapy.

Dr. Clark briefly touched on the treatment of the expectant mother who has syphilis. This is certainly a most important health problem. Dr. Williams, the obstetrician, many years ago, said that in his opinion more lives could be saved by the early recognition and treatment of syphilis of the expectant mother than by any other procedure. In this case, a serologic cure is not sufficient. The clinical cooperative group found that 8.2 per cent of women with syphilis gave birth to syphilitic children after their Wassermann tests were negative, and we found this to be true in the Memphis General Hospital Clinic some nine years ago. All syphilitic women get treatment throughout their pregnancy regardless of their Wassermann, whether negative or positive.

DR. J. C. PENNINGTON (Nashville): Mr. Chairman and Gentlemen: This paper of Dr. Clark's is a very valuable contribution and it has come at a time when we are in sincere need of it. What now is necessary is education of the people, which has had a small start in the papers and magazines, as just mentioned.

The indigent person is provided for fairly well if we find out he has syphilis; we have laws which if enforced will compel him to be treated. But it is the middle class and the upper class that we will have to reach by education, because they are private patients. It is the tendency of every syphilitic to quit his treatment as soon as his lesions are gone. A great many of them say they do not believe they had it; they feel so good after taking the arsenical, which is a fine tonic, that they think there must have been some mistake and they do not want any more treatments. I can cite you numbers of private cases who are well able to take their treatments, but refuse to do it because they feel that way. It is too bad that syphilis does not hurt; if syphilis would hurt, we would get more treatment of it.

A number of these cases that get just enough treatments to get rid of their symptoms marry soon thereafter, and you know the dire consequences. What I think we need is for this association to put out what is considered standard treatment of syphilis to every doctor in the state, let that be recognized as the standard treatment approved by the Tennessee State Medical Association, and then proceed to educate the public to that. As it is now, one doctor perhaps in this town will say, "You need such-and-such treatment." The patient moves to another town and the other doctor has a different idea. The patient gets confused

between the ideas and oftentimes takes no treatment at all.

DR. C. C. TURNER (Memphis): The problem of the early syphilitic is a social problem on account of the transmissibility of the disease; the problem of the late syphilitic is still a social problem because he may be an economic ward of the state and of society in general, and so in the study of neurosyphilis there are a few principles that we should keep in mind. First of all, in the majority of cases of neurosyphilis about sixty per cent, according to a study of a series of cases that we made about ten years ago at the Memphis General Hospital, show negative blood Wassermanns. We should not rely on the blood Wassermann alone for a diagnosis of neurosyphilis.

There is a percentage of cases that cannot be relied upon for positive serology of the spinal fluid, and those cases should be submitted to a complete neurological examination. We know from pathologic study that the brain shows comparatively fewer spirochetes in neurosyphilis than do other organs in other types of late syphilis, and the ravages of the disease result from a proliferative degenerative reaction of the brain itself which continues unless properly treated.

Our signposts of sufficient treatment should not be necessarily negative serology, because the ravages of the disease may continue, and the positive clinical findings may progress in the face of a negative spinal fluid.

DR. W. S. FARMER (Nashville): Mr. President and Gentlemen: I appreciated Dr. Clark's paper very much. As you all know, I do not deal with acute cases. It is the results of syphilis of many years' standing that I see. If we could take syphilis out of all our institutions our tax rate would be lessened.

When you see any man between thirty and fifty years of age who has previously been a good businessman, who becomes extravagant in his dealings, who mortgages his home and squanders his property, and winds up in a hospital for the insane without any history of insanity in the family, the best bet is he has syphilis. He may not in every case have it, but that is the best bet.

Dr. Clark spoke of examining pregnant mothers. As we know, syphilis is a preventable disease, and it should be so taught to our high school pupils. I feel that the greatest work I have done in Nashville is lecturing to and holding clinics for the high schools in our part of the country. We have at this time of the year two and three schools a week, and I call a spade a spade. I tell those young men, "Whenever you start to an assignation house, that minute you have started to a hospital for the insane. You may miss it, but you frequently get an infection that will wind you up at my place." I say to those young ladies, "If you put one hundred young men in this room and you are willing to marry any one of the hundred, but ten or twelve of those boys have an infection of



syphilis, if you marry one of those young men I may get you both, for I have had seventeen husbands on one side and their wives on the other since I have been there, several of them as the result of syphilis."

As I understand the matter, the objective this year of the surgeon general of the United States is to get rid of syphilis.

While the doctor did not speak of it in his paper, crime also is involved. I have found that larceny and forgery are common in syphilitics as well as homicide and suicide quite often.

We know that syphilis is a preventable disease, and I think it is the duty of the general practitioner and everyone else to preach the gospel of right living to every person.

DR. CRIT PHARRIS (State Health Department, Nashville): My comments will be very largely from the public health point of view. Dr. Clark has covered the clinical and some of the public health phases, but there are many obstacles standing in our way yet in the control of syphilis. To me, it seems that one of the most important is provision of treatment for all classes of cases. I would like to tell you just for a minute of some of the hopes that the state department of health has at the present time. Some of you may know that in the past we have been able to distribute, on a limited basis, arsenicals and heavy metals for the treatment of indigents. Because of lack of funds, we have had to discontinue that service. At the present time the state department of health is only able to cooperate in the distribution of arsenicals in those counties that have full-time health departments.

As Dr. Clark has mentioned, there are some fifty counties in the state that do not have this service, but we believe that in the near future we will be able to secure money with which we can supply, at least on a limited basis, arsenicals to be used in the treatment of patients in counties not having this service. Just how much money we will have, we do not know, but we do believe we can cooperate at least on a limited basis.

Another thing I would like to urge is reporting of gonorrhea and syphilis. That is our best yardstick in measuring progress. We can help you, we believe, in the control of your new cases. If you report those to your county health departments and report them to the state department of health, we will be glad to serve you by any means we can to try to keep these people under treatment. If it is left up to the patient, he often will drop out of treatment when he gets to feeling better, but we of the department of health can be of real service to you there in keeping these patients under treatment at least until the danger of relapse is past.

DR. E. GURNEY CLARK (closing): I want to thank the discussers for the remarks they made about the subject. I want to call attention to the exhibit in the anteroom and some literature that we have for distribution to physicians and for physicians to give to their patients. Within the next week we are planning to send out post cards to all the physicians in Knoxville for a survey similar to the one made in Memphis. We would appreciate a reply from the majority of the profession here.

For those who are interested in the treatment of syphilis I would like to read something that will be in the way of assurance to each one of you that this problem is not so great after all. The editor of one of our national weeklies and of other magazines, Bernarr Macfadden, has some very definite ideas about the treatment of syphilis, and I am sure it will add a great deal of assurance to each one of you:

"Numerous instances of the cure of syphilis have been published in *Physical Culture Magazine* through a fast of two or more weeks on water alone, followed by a full raw milk diet. Hydropathic experts maintain that it can be cured by their treatments associated with a cleansing diet. Bathing in and drinking water at Hot Springs and other similar measures are said to be effective. They all go back to the cleansing of the blood stream."

## ALLERGY\*

R. B. WOOD, M.D., Knoxville

IN THIS brief paper we will confine our remarks to two of the most common of all allergic conditions, namely, asthma and hay fever, though it is my belief that skin and gastrointestinal symptoms from an allergic basis are much more common than is generally believed.

By allergy we mean a condition of specific hypersensitiveness exclusive of anaphylaxis.

Asthma is a respiratory form of allergy due to bronchiolar constriction, and its most outstanding feature is an expiratory wheeze. It is well to recall Jackson's words that all is not asthma that wheezes, and the mistakes in diagnosis according to Kern<sup>1</sup> may be grouped under the following headings: (1) mistaking for asthma a disease that is not asthma; (2) failing to recognize asthma and calling it something else; (3) failing to recognize in an asthmatic patient nonasthmatic complications; and (4) failing to recognize in a patient with an obviously nonasthmatic disease the presence of an asthmatic factor.

Dyspnea is an outstanding symptom of asthma, and while it is increased by exercise, it is largely present at rest. Dyspnea, largely related to exercise or exertion, does not have asthma as its cause.

Wheezing rales, while regularly found in asthma, may be produced by a wide variety of other causes, as obstruction by inspissated secretions in various types of bronchitis, foreign bodies, and pressure from without the lumen of the bronchi.

In the very young, because of the presence of fever and elevated white count, asthma is frequently overlooked in favor of pneumonia or other respiratory infections. Aid in determining the exact nature of the infection may be had by the knowledge of a rather short duration of attacks, a history of other allergic manifestations

in the patient or family, and the beneficial effect of antiasthmatic remedies.

In the aged group, where cardiovascular disease is present, one must ever bear in mind the possibility, however remote, of a complicating asthma. While here, as in the tubercular patient, there is no casual relationship, the addition to the already overburdened heart could only hasten the impending disaster.

While the diagnosing of asthma may not be so difficult, the search for the causative factors will usually offer sufficient outlet for the zeal of most of us. I am convinced that a hypersensitiveness exists, be it food, pollen, thermal, or otherwise, and it is present, even though never found. The fact of negative skin reactions proves nothing.

On finding out the causative factors in both asthma and hay fever, a careful clinical history and study is the most important single factor. While by no means ready to decry the use of the sensitization tests, a carefully taken clinical history will often give one the clue to either a correct solution, frequently without use of tests, or to direct this part of the investigation in such a way as to reduce the number of tests to be done.

Probably the second most important step in the diagnostic setup is the physical examination. This should include a complete workout, including examination by the otolaryngologist and roentgenologist and laboratory aids. I am convinced that infection in the nasal accessory sinuses are often causes of asthma, and owing to the condition usually found, local treatment must be given often before either the sinus or asthma is benefited.

The next of importance in diagnostic aids is skin testing. There are two sources of disappointment. First, failure to react to even known factors and, second, reacting to proteins that have no diagnostic value or casual relationship to the case in hand. Then, or if the physician so desires, before testing, resort is to be had to further clin-

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.

ical investigation and the use of trial diets and trial environments. Included in this latter, attention is called to the use of dust-free rooms supplied by filtered air.

Unfortunately, multiple sensitizations are too frequently found and the relative value of positive findings cannot be determined. This calls for prolonged and often fruitless treatment which discourages all parties concerned. There is no alternative, only continued attempts along the lines brought out by each individual study.

A second unfortunate factor in old asthmatics is the presence of complications which will always sooner or later make their appearance. These are sinusitis, emphysema, chronic bronchitis, bronchiectasis, atelectasis, and rarely pneumothorax and subcutaneous emphysema. Owing to the development of an allergic response to an infection of the respiratory tract management of a once simple case becomes that of a complicated one. It is for this reason that the asthmatic patient is in need of a complete diagnostic survey.

What may be expected in the treatment of asthma? As Coca<sup>2</sup> and others state: "Considering the capriciousness of the disease, the multiplicity of causes and the difficulty in obtaining statistics as to benefits, which may be derived from and solely attributed to any particular form of treatment, one can only generalize on the subject." The prognosis depends on the age of the patient, duration of illness, the type of illness, and the presence or absence of complications. It is needless to state that the presence of marked emphysema will forbid the possibility of any asthmatic returning to a preasthmatic level, and the presence of bronchiectasis will, if bacterial sensitivity has developed, prevent any food-allergic patient, even if corrected, becoming normal.

The most promising of all asthmatics are those of the seasonal type, such as the autumnal type accompanying hay fever. Here we may expect under proper management around seventy-five per cent relief. In perennial cases or in those with multiple sensitivity unfavorable results are generally expected. Unfortunately, one cannot, as

has often been stated, speak of cures of an asthmatic as is exemplified by the following case record: M. H., age eight, male, was seen in his first asthmatic attack in February, which had been present mildly with acute exacerbations for about one week. History revealed his particular duty at home was gathering eggs from the hatchery. Testing only for chicken feather sensitivity revealed a marked reaction. He was given ephedrine and instructed to remove chicken feather pillows and to avoid the hatchery and report at the end of one week. He was not seen again for five years and reported having had no asthma until three days before. This was in August, and he related the only unusual event of the day before his attack was pulling weeds. Tests revealed marked sensitivity to pigweed. On avoiding the fields, he was asthma free for another period of five years and returned in December. No leads were obtained, but tests revealed a marked reaction to orris root. We then obtained the information he was dating with his first love. Instructions were given as to his providing orris-root-free powder and to report any further attacks of asthmatic dyspnea, which have not occurred for a two-year period.

Perhaps twenty to thirty per cent may be expected, as the result of treatment and natural tendencies, to receive rather permanent relief, another twenty-five to thirty-five per cent may expect relief most of the time, and fifteen to twenty per cent may expect to obtain no relief whatever. Results are dependent on the thoroughness of examination and treatment prescribed, the presence of complications, and the amount of cooperation given by the patient.

Hay fever and vasomotor rhinitis are either of a perennial or seasonal variety. Of the latter, we note three periods—early spring, early summer, and fall. The early spring cases are usually due to tree pollens and occasionally grass, while that in early summer is from grasses, with weeds acting as causative agents for the fall variety. Cases may, but not often, last from spring to fall due to multiple sensitivity. The per-



ennial vasomotor rhinitis victim has perhaps seasonal variations, but the chief factors in production of symptoms lie usually outside the lists mentioned above. Here we find that the most frequent offenders are dust, orris root, feathers, animal hair, kapok, cotton, wool, seeds, foods, and insecticides.

As to the role of pollens in the production of symptoms, one must recall the five well-known postulates: (1) The pollen must contain an excitant of hay fever. (2) The pollen must be wind-borne. There are, however, many examples of hay fever due to close contact, such as smelling of a flower. (3) The pollen must be produced in large quantities. (4) The pollen must be sufficiently buoyant to be carried considerable distance. (5) The plant producing the pollen must be widely and abundantly distributed.

These postulates are laid down as general guides in estimating the role played by various pollens as causes of hay fever, and exceptions are to be noted to all except the first.

Of the various groups listed as causes, the trees are the least important. Though there are listed almost 300 different species of grasses, there are in reality only four or five that fulfill the five postulates listed above. These are the cereals, more applicable in Europe, Timothy, June grass, and Bermuda. The plant families, in which belong the various species of weeds known to cause hay fever, may be divided into two groups: first, and of most importance, is the Ambrosiaceae or ragweed family and the Compositae or thistle family; and (2) the pigweed, goosefoot, plantain, buckwheat, and hemp families.

The period of pollination is approximately as follows: For the tree group—March to June, though this depends on both climate and season. As has been noted by Jennison<sup>3</sup> around Knoxville trees may pollinate in January or February, while the same tree will pollinate in Massachusetts around the middle of April.

The grasses usually pollinate from the middle of May to July, with the weeds be-

ginning in mid-August and ending with frost.

As to treatment of hay fever here, we have access to methods far superior to that used in asthma. While escape from the cause is more difficult, specific desensitization is more possible.

There are several objections to the methods frequently used. (1) Many physicians will attempt to treat a fall hay fever, for instance, without ever testing for sensitivity. Though in most instances, ragweed serum will be the one indicated, it is only logical to test first. (2) In use of many stock vaccines in which a limited number of dosages are available, insufficient immunization is produced because of inadequate dosage. (3) At times immunity may be hindered by giving a dosage too large, thus obtaining severe reactions. (4) Perennial treatment, which is the preferable method, is not possible.

It is advisable to (1) test for sensitivity to possible causes; (2) test patient's reaction to different strengths of serum before selecting strength; (3) give sufficient amount to immunize; (4) continue with monthly injections throughout the year after the season is passed with smaller doses and increase just before season opens for a period of two to three years when one may expect around ninety per cent cures.

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1. Kern: "American Med. Clinics."
2. Coca, etc.
3. Jennison: "Trees That Bloom in Winter."

#### DISCUSSION

DR. ALFRED GOLTSMAN (Memphis): Mr. Chairman and Gentlemen: I want to congratulate Dr. Wood on the manner in which he presented the subject of allergy to you. I infer from the way in which his paper was written that he is an internist and considers allergy as a part of internal medicine. If such be his viewpoint, I am in hearty accord.

While allergy is a condition of specific hypersensitiveness, still I believe the term should be used in a broader sense. The term allergy was coined by Von Pirquet in 1902 and is derived from the Greek "allos," meaning altered, and "ergos" meaning reactivity. So we may say that the term allergy implies altered cellular activity and may be defined as a condition of exaggerated susceptibility to a substance which is harmless in similar

amounts for the majority of individuals of the same species. The exciting substance may or may not be protein in nature and may not be productive of free antibodies demonstrable in the serum.

Kolmer has offered us a most practical classification of allergy which is as follows:

#### ALLERGY

Hypersensitive	Anaphylaxis
Natural	Natural
Acquired	Acquired
Nonprotein substances	Protein or Protein derivatives

With this classification in mind, anaphylaxis may be defined as a state of allergy characterized by unusual or exaggerated susceptibility of the organism to foreign proteins or protein derivatives.

Hypersensitiveness may be defined as a state of allergy characterized by unusual or exaggerated susceptibility to nonprotein substances such as drugs.

Coca insists allergy should be reserved for these reactions in which antibodies are nondemonstrable. With this viewpoint I cannot agree, for man is not infallible, and our technique for discovering antibodies is too imperfect to insist on such a basis for classification.

Bronchial asthma is a disease which causes great suffering to an individual who is afflicted, yet some medical men are prone to consider asthma rather lightly and feel that they have performed a great service to the patient when they give the age-added advice: "Do not worry, my friend, asthma will never harm you in any way nor kill you." Such an impression is quite out of date, for asthma does kill, both directly and indirectly, and its complications at times cannot be combated by modern therapeutic measures. Koessler and Huber have reported six deaths from asthma with autopsy findings and reviewed fifteen cases reported in the literature. I have had five deaths from asthma in my practice, and many other reports may be found in the literature of the past two decades.

Asthma is not only a social problem, but an economic problem as well. The time to treat the patient is when his disease begins, for to wait brings only disaster in many instances. The sputum of the uncomplicated asthmatic is clear, but when complications supervene, such as bronchitis, bronchiectasis, etc., it becomes purulent. The most frequent complications of asthma in my experience have been:

- (1) Purulent sinusitis.
- (2) Purulent bronchitis.
- (3) Pulmonary emphysema.
- (4) Bronchiectasis.

When bronchial asthma persists for a prolonged time, emphysema is invariably present. Even though the asthma is relieved, the emphysema persists and leaves the patient in a helpless state.

Since I have told you that asthma and its complications are rather devastating to the human anatomy, you may ask how it can be relieved. To this question my answer is by early diagnosis as to the disease itself and its etiology. This is quite readily accomplished in the majority of instances by careful history taking, followed by unbiased clinical study which should favor no one specialty, not even the allergist. Specific sensitization to foreign substances is probably the most important factor in the production of asthma, yet in many instances relief is not obtained by modern allergic therapeutic methods alone. We must remember that other pathological processes may coexist with allergy, and when present must be relieved or at least attenuated before a great many asthmatics are benefited. Asthma may exist alone or coexist with other diseases, and conversely other diseases may coexist with asthma. Foci of infection should be sought for and when found promptly eliminated, for infection in any system usually means persistence of the asthma. Metabolic diseases such as diabetes mellitus, hypothyroidism, and myxedema often serve as factors in the production of intractable bronchial asthma. I hope from the foregoing remarks that I have made it clear to you that in every case of asthma you treat the patient as well as the disease.

Hay fever is a disease which has been recognized for centuries. Botallus of Pavia in 1565 described patients in whom the smell of roses produced headache, sneezing, running nose, and weeping. John Bostock in 1819, an English physician, placed hay fever in the list of clinical diseases by a careful description of his own case. Since this time, as you all know, volumes have been written on hay fever. Hay fever should be diagnosed properly and properly treated for two reasons:

- (1) The one afflicted is often incapacitated.
- (2) To prevent its complications.

Sixty-five per cent of people suffering with hay fever in one form or another develop asthma. Seventy-five per cent of chronic suppurative sinus disease has an allergic foundation, and therefore persists when only local treatment is carried out. How comfortable we could make many patients if we could work together and fully realize that some diseases are often benefited by specialties which are outside the anatomical bounds of the disease.

Again I say, treat the patient as well as the disease!

CLARENCE S. THOMAS (Nashville): Dr. Wood has given a short essay on two important allergic manifestations. Of almost equal importance in the commoner allergies, I believe, are the gastrointestinal conditions, skin manifestations, and allergic headaches. All five of these conditions frequently occur in the same patient and constitute a major portion of allergic practice.

Asthma is defined by the essayist as "a respiratory form of allergy due to bronchiolar constriction." I am sure that Dr. Wood did not mean to convey the impression that this obstruction of the bronchioles was due entirely to spasm of the bronchial smooth muscle. The best opinion, at present, seems to indicate that there are, at least, three factors: (1) spasm of bronchial smooth muscle, (2) swelling of bronchial mucosa, and (3) bronchial occlusion by mucous secretion. The relative role of these different elements is still a debatable question.

The conditions which may be confused with asthma are numerous, and the differential diagnosis, on occasions, is quite difficult. The majority of cases offer little difficulty as has been implied. The necessity of distinguishing between the dyspnea of cardiac origin and bronchial asthma is urgent in each case because of the difference in treatment. I have seen more than one tired heart whipped by the lash of epinephrine into a frenzied effort when rest was the treatment most indicated. In my opinion, there is such a thing as a true bacterial allergy, the infection of the sinuses frequently being the primary focus. Autogenous vaccines made from cultures of the sputum frequently give striking results when no definite sensitivity otherwise may be demonstrated.

As for skin tests, properly done intradermal tests properly interpreted are of inestimable value in the multiple sensitivities of adults, but much less so in infants and young children. It is true that a majority of cases could be solved without extensive testing if one wished to expend the time and effort necessary and, at the same time, possessed sufficient knowledge of the common causes of trouble.

The statement that "in perennial cases of asthma or in those cases showing multiple sensitivity, unfavorable results are generally expected" cannot pass unchallenged. I have hastily reviewed the cases, falling under this heading, found in my private practice. These are cases treated for over six months during the last four years. Fifty-five per cent of these cases gave satisfactory results. By satisfactory results I mean the patient has either had no symptoms or only a rare,

easily-relieved asthmatic seizure with no symptoms between such. Of these cases 22.5 per cent had less frequent and less severe attacks, while the remaining 22.5 per cent of this group are listed as failures. The latter group was composed, in a large part, of the patients who had complications of asthma such as those mentioned by Dr. Wood.

May I point out that one must not become easily discouraged in the treatment of asthma. Frequently cases respond but slightly to treatment for a year or even longer when they may suddenly cease to have attacks—this, without change of food, environment, treatment, etc. The explanation for this phenomenon is not clear. Possibly, it may be a question of dosage.

In the treatment of perennial vasomotor rhinitis, in addition to the extremely common causes of trouble mentioned by Dr. Wood, always consider the possibility of bacterial and mold sensitivity. It would, also, seem advisable to have a basal metabolic rate determination done. This is merely a precaution in determining the presence of an endocrine factor. A number of cases of perennial vasomotor rhinitis will not respond to treatment until the endocrine factor has been adjusted.

Perennial treatment of hay fever cases is certainly the method of choice. However, preseasonal treatment, properly carried out, will give satisfactory results in about eighty-five per cent of the cases so treated. Coseasonal treatment, while much less satisfactory, gives results which justify its use in cases coming for treatment during the season.

DR. R. B. WOOD (closing): The treatment of any allergic condition, while rather disappointing at times, I feel, will never be what we would like to have it until we find out what it is that takes place in that individual that makes him react to a substance as the asthmatic does. If it can only be found what can be done for that individual so that he will not react, our treatment then would be much more satisfactory, and it is only then I feel that we will get anything like a decent kind of response to the various and sundry methods that we have at our command at the present time.



# OUTLINE AND RESUME OF WORK DONE AND TO BE DONE IN POSTGRADUATE OBSTETRICAL COURSE\*

FRANK E. WHITACRE, M.D., Memphis

I HAVE BEEN requested by the committee on postgraduate instruction to give you a résumé of the course on obstetrics. The object of such a course is obviously an attempt to decrease the maternal mortality of the state and to benefit the public directly through their own family physicians. There are very few physicians who find it possible to go to a medical center to take a course in postgraduate work. They must include in the cost of such a course not only the expense of the trip and maintenance, if this is not withstood from other sources, but also the temporary loss of practice while away from their offices. The circuit plan of postgraduate instruction attempts, therefore, to overcome these objections. Although Virginia, Mississippi, Oklahoma, and other states have previously carried out something similar, Tennessee can well consider herself a pioneer in this field. Following the suggestions of the committee on postgraduate instruction, the following subjects were chosen for the course of ten lectures, as they seem to cover the subject as completely as is possible in the time allotted to each circuit.

## *I. Prenatal Care—Examination of Patient, Diagnosis of Pregnancy.*

History; Physical Examination; Vaginal Examination; Diet; Weight Gain; Fluid Intake and Output; Follow-up; Toxemia; Heart Disease; Syphilis; Diagnosis of Pregnancy.

## *II. The Conduct of Normal Labor.*

Room; Light; Bed; Equipment and Supplies; Sterilization; Preparation of Patient; Examination; Scrub; Vaginal Examination; Conduct of First, Second, and Third Stages; Repair of Injuries; Anesthesia and Analgesia; Care of the Infant.

## *III. Obstetric Hemorrhage—Classification, Mortality.*

Abortion; Hydatidiform Mole; Chorioepithelioma; Ectopic Pregnancy; Placenta Previa; Abruptio Placenta; Postpartum Hemorrhage; Puerperal Hemorrhage.

## *IV. The Toxemia of Pregnancy—Classification.*

Hyperemesis Gravidarum; Chronic Nephritis; Preeclampsia; Eclampsia.

## *V. Puerperal Infection — Mortality — Causes.*

Puerperal Thrombosis; Puerperal Sepsis; Diseases of the Breasts.

## *VI. Management of the Puerperium and Gynecological Disorders.*

General Hygiene and Care; Final Examination; Leukorrhea; Mycosis; Trichomoniasis; Retroversion; Bleeding; Varicose Veins.

## *VII. Obstetric Operations — Classification, Home Preparation.*

Induction of Premature Labor; Bag Induction; Episiotomy; Use of Forceps; Occipitoposterior; Version; Breech Extraction; Separation of Placenta; Uterine Tamponade.

## *VIII. Dystocia in Labor.*

Abnormalities of Bony Pelvis; Large Fetus; Hydrocephalus; Occipitoposterior; Transverse Presentation; Face Presentation; Short Cord.

Cesarean Section—Varieties, Indications, Technic.

## *IX. Care of Newborn and Problems of Pediatrics.*

General Care; Weight Loss; Feeding Formulas; The Premature Infant; Treatment of Disorders; Common Disorders of Newborn Infant — Miliaria; Erythema; Bleeding; Edema; Umbilical Hernia; Hydrocele; Cryptorchidism; Injuries; Fracture of Clavicle; Obstetric Paralysis; Intracranial Hemorrhage; Infection; Thrush; Conjunctivitis; Pemphigus; Pyelitis; Syphilis.

## *X. Medical and Surgical Complications of Pregnancy.*

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.

Tuberculosis; Anemia; Heart Disease; Syphilis; Pyelitis; Appendicitis; Hernia; Intestinal Obstruction; Obstruction of Gall Bladder and Bile Ducts.

#### Blood Transfusion.

Inasmuch as some seventy per cent of all births in this country occur in the homes, and probably always will, we attempt to discuss each subject from the standpoint of treatment in the home, believing that a so-called hospital course would be of much less practical value. The method of instruction includes approximately one hour of lecture, followed by a demonstration either with moving pictures or lantern slides, as seems best suitable; and this is followed by a brief discussion in which all are requested and urged to take part. Following this, we usually spend a varying amount of time on the examination of one, two, or more patients in any stage of gestation, who have been brought in by the clinic chairman. Doctors are in no way required to remain for the examination of patients, and many may find it necessary to look after the needs of their practice; but the teaching value of the examination of patients cannot be overemphasized and, just as the human hand is still the finest and least dangerous obstetrical instrument, so the living mannequin has never been improved upon.

Of course it is impossible always to bring in cases which demonstrate the particular subject under discussion. At one center the question was brought up as to what type of case was desired for the next session. We mentioned that the toxemias of pregnancy would be the subject and said please not to bring in an eclamptic patient. The following week, however, we were finishing our discussion when a patient having convulsions, and in deep coma, was brought in by one of the doctors. We reached an agreement to treat the case, provided the members of the class who resided in that particular center would remain to witness the treatment. Two other cases come to mind, one breech extraction and one forceps delivery of an occipitoposterior position. Finally, it bears mentioning that methods of examination are sometimes helpful. One doctor mentioned that he was called as con-

sultant on a case that had been in labor for many hours, and attempts to deliver with forceps had not been successful. He made a diagnosis of occipitoposterior position from the abdominal examination alone, and quickly and successfully delivered the patient with forceps. The diagnosis was established on points brought out in the examination of patients in the course. It is not superfluous to repeat that the value of clinical material cannot be overemphasized.

Physicians attending the course are invited to accept such consultation on cases in their own practices as they may see fit, provided the problem is obstetrical, and that seeing the patient does not interfere with the regular scheduled meetings.

In the first circuit meetings were held at Covington, Brownsville, Jackson, Selmer, and Bolivar. It was gratifying that the ninety-four enrolled physicians attended eighty per cent of the sessions, in spite of the fact that a large volume of sickness in January and February, and the flood situation, together with the necessity to care for refugees, made attendance at times either impossible or most difficult. In the first circuit, seven lectures were given to the laity, principally to organized women's clubs and to parent-teacher associations. The main subject matter was the value of prenatal care. Also two talks were given to county medical societies at their regular meetings on subjects not included in the course.

In the first circuit forty-seven patients were seen in consultation. This is, of course, done without charge and is considered to be a part of the course, or, better speaking, a service of your state medical society. The second circuit includes Jackson, Dickson and Centerville, Fayetteville, Pulaski, and Waynesboro. The lectures are being repeated at Jackson in order to accommodate a group of twenty-one colored doctors. The attendance of the 103 physicians enrolled in this circuit has been encouraging. The subjects and method of presentation are, of course, the same as in the first circuit, but, owing to the wide distances between centers, it is necessary to see fewer cases in consultation.

It has been stated that the circuit plan of postgraduate instruction has been done elsewhere before, but we believe this is the first time that lectures to the laity have been combined as an essential part of the course. This we believe to be highly important. The ultimate value of postgraduate instruction is considerably lessened if the doctor has little opportunity to see the patient until her condition becomes complicated or even hopeless. The ideal of early prenatal care can be accomplished only when desirable information reaches the public. They must understand that during pregnancy the border line between health and disease is very narrow, and that an individual is not necessarily out of all danger just because she looks well and feels well. She must have it brought to her attention that the question, "Is labor in the woman of today a normal function?" should be answered, "It should be but is not." She must know the truth; that 25,000 women die annually in the United States directly or indirectly as a result of childbirth; that the main causes are infection, eclampsia, and hemorrhage; and the important fact that a large proportion of these are preventable deaths. In no other field can a physician accomplish so much, provided the patient is seen early enough.

In general, the public does not hold the practice of obstetrics in very high esteem, as is shown by the fact that the childbearing woman is often left to the inexperienced or even the nonmedical, the midwife. Almost everyone has some idea concerning tuberculosis and cancer, but this has come in the last several years, due to the agitation of certain groups such as women's clubs, and to the dissemination of information in newspaper articles, etc. The great majority of thinking individuals only need to be told of the benefits to be derived from prenatal care, which is in line for propaganda. And with this line of thought, the committee thought it best to include public lectures on this subject as a part of the present program.

#### DISCUSSION

DR. JAMES R. REINBERGER (Memphis): At the outset I might say that I am almost overwhelmed. Before Dr. Williamson's remarks, I was

rather in a dilemma as to what phase of this paper I should discuss. As a matter of fact, Dr. Whitacre has closed out the discussion in his résumé.

I do think that it is an important thing for the sections of the state that have not been visited by this course, either by circularization or by our field organizer, to have some idea as to what the general prospectus is for the course.

The state maternal welfare committee felt some two years ago that the problem of the profession was, first, to educate the public to appreciate the dangers and the advantages gained by good obstetrical care; second, they thought that we should supply means of educating these groups; third, the education and the constant reeducation of the physician who was unable to attend postgraduate courses elsewhere; and fourth, as a result of the broad educational program to laymen and physicians funds would come from county, city, and state organizations to supply money for those unable to pay for their care. The above was the original motive of the state maternal welfare committee. As a result of this program, your trustee thought it a good plan to give such a course to physicians and indirectly to educate laymen.

After this course is over, whether we ever give another course or not, if we have only educated the physicians in this state and if we have left imprints on the people of the state, then personally I think we have made a success of this type of work. I feel that talking to as many people as Dr. Whitacre has talked to and is going to contact, we will have the thorough cooperation of all lay groups.

The prospectus of this course is simply that we have divided the state of Tennessee into nine geographical divisions. It will take two years to cover the state. Ten weeks will be allotted to each circuit. A given series of lectures, as outlined by Dr. Whitacre, in conjunction with and in cooperation with your local organizations providing clinical material, and (where clinical material is not provided for) mannikin demonstrations, operative technic, etc., make up the two hours' work.

We are shifting our circuit because of geographical and climatic conditions. We started teaching circuit in West Tennessee because it was warm. We moved along toward the southern border because of the same reason. We are shifting to East Tennessee because it will be cool and physicians can attend courses that they could not otherwise attend in cold weather. Then we will shift back and forth according to seasonal changes. In other words, the point I want to make is that we did not pick out just one part of the state and another part of the state for any reason other than to have thorough cooperation of physicians.

I might mention that this is a very expensive plan of teaching; but I have had the opportunity to contact most state maternal welfare commit-



tees, having just last week visited Missouri. It is expensive because your state medical society is contributing very graciously to this fund. If it were not for the Commonwealth Foundation we could not go further. I personally want to thank every man on the committee. Dr. John Lee and Dr. Youmans, whom I see in the audience, I thank and all other members present for their thorough cooperation.

I want this organization to know that every effort has been made to save your money. When we finish this course, unless our figures are wrong, based upon a budget and an approximate amount of money to be spent for two years, we may be able to return to the Tennessee State Medical Association as much money as the association has put into the fund. I hope our figures are correct.

It would seem at the outset that we have spent money perhaps overenthusiastically, but you must realize that the initial expenditures for the first circuit will never occur again. The apparent outlay of funds purchased office and teacher's equipment for the entire course. Therefore there will be less money spent for each successive circuit.

I want to thank Dr. Williamson, the president of your society, for his untiring efforts and his unlimited enthusiasm, riding throughout the course with me in an effort to put this over. I also thank every county medical society. They have cooperated 100 per cent. If they had not cooperated, we would not have had ninety-three men enrolled in the first circuit, 103 paid up in the second circuit, and already thirty-one enrolled in the third circuit. Such cooperation has resulted in mutual good for the entire state.

DR. FRANKLIN B. BOGART (Chattanooga): I received a great deal of kidding at home because I was listed to discuss this paper and am a radiologist. Dr. Reinberger is the only member of the committee who is an obstetrician. It has been a pleasure to represent the state association as one of their four members on this committee.

Two years ago I had the privilege of serving on the committee on education with Dr. Otis Warr, whose passing we all lament, and I was impressed during that period of time with the fact that we were not going to be able to put on an educational program unless we had a program that could be put on in cooperation with a group of agencies and some agency that could supply a sufficient sum of money, because our state association was not able to finance any program that would require the full time of a group of individuals. I think that Dr. Williamson's emphasis on the fact that the state association is putting this program on is certainly not true; I think that as Dr. Reinberger has stated we are under a great deal of obligation to the two schools and to the state department of health and to the Commonwealth Fund.

This probably is not the proper place to say it—I may be misinformed—but I believe that any

part of the money forming our budget which we do not spend will be taken out of future appropriations from the Commonwealth Fund. If it does cost every bit of surplus that the state association has—and it will not do that—it is a worth-while program and one that you as individual members of the state association should be proud of.

I feel that the plan being followed by this group in obstetrical teaching will go a long way toward solving the problem of postgraduate teaching and that it will effectively bridge the wide gap that exists between the recognized necessity for postgraduate teaching and the inability of the average practitioner to go to the medical centers to obtain this instruction.

As has been stated before, it is hoped that after the present course in obstetrics is completed other specialties and other lines of medical and surgical knowledge can be taught in a similar way to the men in the state, and the state association should lay plans to carry on such work in the future. I think it should make it the principal objective for the next few years.

Such a program, of course, will only be effective when the great majority of the practitioners of the communities of the state participate. It is hoped that everyone here will return home and tell his confreres about this work, so that Dr. Whitacre and his associates will have the hearty cooperation which will be necessary to successfully carry out this program.

MR. L. W. KIBLER: I have been accused of taking more money away from the doctors in county society meetings in the last few months than has ever been done before in Tennessee.

Therefore I regret to appear before a meeting like this, but I do see a lot of physicians whom I have met out in these counties where we have organized the obstetrical courses for Dr. Whitacre in the past few months. They all seem pretty friendly toward me here in the lobby as I meet them in spite of the fact that I have relieved them of some of their money for fees for the course.

It has been a pleasure to work in Tennessee with the society officers throughout the state thus far. All of them have rallied to the support of this course. It shows the genuine interest and appreciation by the county societies in postgraduate teaching. Many secretaries have taken their time and have gone out with me in my car over the county and solicited doctors personally in their offices when they could not attend the county meetings to acquaint them with the preliminary plans for the course in their county.

If you are interested in finding out when this course will possibly reach your section and your county, if you will stop in the booth we have in the lobby, you will find a little map there, and the young lady secretary of our office can tell you quite definitely the approximate months that we will reach your county. We have charted out the whole state on a district basis, as Dr. Reinberger outlined, and it is all there on the map.

## EPILEPSY\*

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THE SCOURGE of epilepsy dates from time immemorial. Hippocrates was thoroughly familiar with the disease, and from his observations and studies of the affection propounded a dictum in which he declared, "For the cause of epilepsy look in the head."

There is no disease with which there has been associated more mysticism, fantasy, and fact than epilepsy. On account of regular recurrence of the seizures, the cyclic types were associated with changes in the moon. In the days of witchcraft the afflicted were accused of being possessed and being under the spell of devils and evil spirits. More recently, menstruation, amenorrhea, and the climacteric in the female have been blamed for seizures. In the male redundant prepulse, masturbation, and sexual excesses have supposed to initiate seizures. Other ascribed causes have been crooked spine, colitis, chronic appendicitis, ovarian cysts, and gall bladder disease.

The word epilepsy is a symbol under which may occur a variety of symptom patterns. Faints, amnesic spells, sleepwalking, convulsions, psychic explosions, and even migraine have all been described under this caption. Present-day writers prefer to speak of "epilepsies" in treating the subject, while Cobb and others suggest that we term the seizures "convulsive states" and drop the term epilepsy.

The mechanism of convulsions has not been definitely determined, though much has been written on the physiology. There have been a number of theories advanced

as to the cause of attacks, namely, the irritation, the release, the short circuit, and the explosive.

The basis for the irritation theory is that electrical excitation of the brain will cause a convulsion. The known fact that an irritation lesion of the brain frequently induces a convulsion leads to the deduction that local pathology electrically excites or irritates the brain and produces the convulsion.

The release theory holds that convulsions result from the explosive discharge of the lower centers because of inhibition of the control centers. Temporary suspension of function of the cerebro cortex allows explosive discharge from these uninhibited areas.

The basis for the short circuit theory is that a cortical lesion interrupts enough association fibers to check the normal spread and absorption of impulses coming up from the lower levels to these areas of the cortex subserving sensation. From these regions impulses are normally directed by sensory motor neurones to motor pathways, where they are represented dynamically in actual muscle movements and other energizing functions. A cortical lesion may interrupt this general spread of nerve impulses, causing them to take a shorter abnormal route which leads to an explosive motor discharge.

The explosive theory deduces that a seizure arises as a widespread change in brain tissue and its blood vessel walls with an increase in their permeability similar to that occurring in anaphylaxis.

## FACTORS INVOLVED IN CONVULSIONS

There are many factors involved in producing a convulsion. These may be grouped as (1) organic changes in the brain or its coverings, (2) functional abnormalities of the brain cells, and (3) the abnormalities of the body outside of the brain. The organic changes in the brain and its cover-

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ings are numerous. Some of the diseases of the central nervous system which may be followed by convulsions are traumatic lesions, tumors, syphilis, tuberculosis, brain abscesses, edema, meningitis, multiple sclerosis, degenerative nervous diseases, toxins, and disturbances of circulation. It must be remembered that the pathology alone does not cause epilepsy and, hence, cannot be the only factor. Otherwise, all patients with the above-mentioned diseases would have convulsions, or the patients with the most severe lesions would have the most frequent seizures. This does not follow. Post-mortem examination does not reveal any special plan which is pathogenetic of epilepsy. Degenerative changes suggestive of an ischemia have been described as always occurring in epilepsy, but there is no pathological evidence as to the cause of the ischemia. Neurological examination and air injection of the brain occasionally indicate organic lesions, but nothing specific has been demonstrated. It must be stated that almost any lesion plus the unknown "X" may result in a convulsion. Even in the presence of organic changes in the body an additional factor is needed to explain why seizures come only to certain individuals. At this time arises the question of heredity, which is still a point of controversy.

Burr<sup>1</sup> states that convulsions may be an evidence of congenital instability of the germ cell. He believes the predisposition to nervous disease is inherited, but that the type of disease which appears depends not only on predisposition, but upon causes which arise in utero, or even after birth. On the contrary, Brain<sup>2</sup>, in a study of 200 epileptics as compared to a control series of nonepileptics, found a family history of convulsions in twenty-eight per cent as compared to ten per cent in the family of the control group. It is probable that both are right and that any individual may have a convulsion when the threshold for seizures is lowered.

Recent investigation shows that the threshold of seizures depends upon certain physical factors as follows:

1. *Oxygen Content of the Brain.*—Anoxe-

mia of the brain may be followed by convulsions.

2. *Hydrogen Ion Concentration.*—Clinical evidence shows that increased irritability of nerves accompanies alkalosis of the blood and tissues, whereas, acidosis lessens irritability.

3. *Edema and Permeability of Cell Membranes.*—During periods of circulatory stasis and anoxemia, fluid escapes through the capillary walls at four times the usual rate, thus promoting edema and lowering the threshold for seizures.

4. *Blood Supply to Nerve Cells.*—The function of any tissue depends upon its proper blood supply. Nerve cells are less likely to initiate convulsions when they are abundantly supplied with oxygen and nutrient material. Therefore, when any condition alters the normal physicochemical state of nerve cells, their convulsive reactivity is affected. Constriction of the arterioles of the membranes and cortex tend to cause seizures in a patient, whereas, conditions which cause dilation of arteries inhibit seizures.

5. *Psychogenic.*—Many psychoanalysts consider seizures as an evidence of emotional possession. Granted the importance of emotions in epileptics, it must be remembered that such stimuli must act through physiological processes, such as changes in blood flow through the brain or physicochemical processes in nervous tissue.

#### ABNORMALITIES OUTSIDE THE CENTRAL NERVOUS SYSTEM

1. *Circulatory System.*—Epileptics do not have disease of the heart or arteries with any more frequency than nonepileptics. Loss of consciousness with heart block is well known, but the occurrence of convulsions with this disorder is rare. Changes in rate and rhythm are effects of seizures rather than the cause. Investigation leads to the conclusion that capillary spasm and stasis is found associated with eclampsia and other convulsive states.

2. *Vasomotor Control.*—It has been demonstrated that the cerebral arteries are under vasomotor control. Stimulation of the cervical sympathetics causes constrict-



tion of the cerebral arteries, whereas stimulation of the vagus causes their dilatation. It has been definitely proven clinically that spasm may produce transitory hemiplegias, aphasias, and hemianopsias. In addition, migraine and epilepsy are often ascribed to spasm of the cerebral vessels. Many observers have described the ocular fundus just after convulsion as being pale with indistinct arteries. Many surgeons have studied the exposed cortex through windows in the skull during convulsions. Foerster<sup>3</sup> states that at first the brain becomes pale and shrinks away from the skull, but it bulges greatly with blood as the convulsion starts. Relief of epilepsy by removing the cervical sympathetics on one or both sides has been disappointing.

By compression of the carotid arteries Jacksonian epilepsy may sometimes be induced. These observations show that deficient blood supply to the brain may induce convulsions.

3. *The Autonomic Nervous System.*—Various observations indicate that many patients with epilepsy present evidence of a lack of balance of the autonomic nervous system. This demonstrates further the relationship to seizures through altered blood flow in the brain. It may further explain the influence of the emotions in the production of fits, since the emotions and their interplay between the glands and autonomic nervous system are so protean.

4. *Respiration.*—The study of respiratory dangers in the production of fits has yielded no definite information as yet. Pulmonary infections rank high as a cause of death in institutional epileptics, but this may be considered a complication rather than a cause of convulsions.

5. *Gastrointestinal Tract.*—Epileptics as a class are voracious eaters and suffer from constipation. Therefore, abnormalities of the gastrointestinal tract have been frequently accused as a cause of convulsions. This has not been supported by convincing clinical data. Apparently, organic and functional abnormalities of the gastrointestinal tract are no more common in epileptics than in nonepileptics. No evidence has been offered to show that toxic substances arising

in the intestines may contribute to seizures. Cobb<sup>1</sup> infers that chronic distension of the colon may cause nerve fatigue by overstimulation of the sensory nerves or from the general fatigue and lowered physical fitness accompanying constipation.

6. *Basal Metabolism.*—Abnormality in the amount of oxygen which a person consumes is an indication of endocrine disturbance. The comparatively few observations concerning the basal metabolic rate in epilepsy are inconclusive. Frisch<sup>2</sup> in forty women found positive values in the majority. Cobb<sup>1</sup> states that anoxemia is a factor only in patients whose threshold for seizures is low. With patients who had infrequent attacks, he could not induce seizures by producing anoxemia. There seems to be no change in the rate of oxygen consumption before seizures, but if a patient having frequent seizures breathes oxygen-poor air, seizures may result.

#### THE ENDOCRINE GLANDS

1. *The Thyroid.*—The coexistence of hyperthyroidism and epilepsy is rare. Seizures are more frequently associated with hypofunction of the thyroid gland.

2. *The Parathyroid.*—The coexistence of tetany and epilepsy is exceptional. The calcium content of the body fluids in epilepsy is normal, and epileptic patients receive no benefit from the administration of calcium or parathyroid substance.

3. *The Adrenal.*—Experimental studies are inconclusive concerning the effect on epilepsy of adrenalectomy. Cobb points out that if there were any great increase in adrenal secretion before the seizure, the heart rate, blood pressure, and blood sugar would be increased. During a seizure, as in any other muscular effort, the adrenal output must be greatly increased.

4. *The Pituitary.*—Cushing's<sup>4</sup> work suggests that the internal secretion of the pituitary gland enters the spinal fluid and bathes the cortex of the brain, reducing in some way its irritability. Therefore, any reduction in the amount of pituitary secretion by dysfunction or obstruction would contribute to convulsions. Some patients show a definite relationship of seizures to

dysfunction of the pituitary gland. In two of our own cases of pituitary tumors, convulsions ensued when the blood sugar dropped below fifty milligrams. Therefore, the relationship of pituitary dysfunction and convulsive seizures may be explainable through the effect the pituitary gland has on carbohydrate and water metabolism.

5. *The Gonads*.—Scattering reports of convulsions in the male after castration are found. In female patients, seizures frequently occur at or near the menstrual period. Numerous women have been deprived of their sex organs, but not their seizures, by abdominal section.

6. *The Pancreas*.—Rynearson<sup>7</sup> advocates removal of a portion of the pancreas in convulsive seizures associated with hypoglycemia. Some clinicians favor a high carbohydrate diet in epilepsy. There is little controlled evidence to support this rationale. The majority of epileptics show an increase in blood sugar and spinal fluid sugar immediately following the seizure, but this is to be expected after severe muscular exertion.

7. *Blood*.—Many clinicians think of syphilis and epilepsy synonymously and consider a blood Wassermann test as the sine qua non of serological investigation in the epileptic. While several types of neurosyphilis may be attended by convulsive seizures, the attack should be considered as a symptom of syphilis and not a cause of epilepsy. Munson and Shaw<sup>8</sup> ran routine Wassermann tests on 1,473 epileptics in which only 1.5 per cent were positive. Of 305 brains examined, two showed gumma. Of 4,100 patients examined clinically, only 3.4 per cent gave evidence of syphilis. These figures are probably smaller than would be shown by the population at large. The morphology of the blood cells and the physical properties of the plasma are not consistent enough to be of any evidence in association with epilepsy. The presence of an increased fibrinogen and speed of sedimentation in a few patients may indicate destruction in these cases.

8. *Spinal Fluid*.—About twenty per cent of epileptics have increased spinal fluid

pressure. A small percentage of these will be found to have intracranial pathology of massive proportions. During the seizure the spinal fluid pressure mounts perceptibly in the tonic phase, because of the venous pressure. There is little evidence that increased spinal fluid pressure induces seizures or that a reduction of pressure alleviates symptoms.

### TREATMENT

The treatment of epilepsy can be easy or hard. It is easy when we accept the patient's or relative's statements about the convulsion and then treat with a shotgun mixture of bromide and luminal. Such a hopeless attitude on the part of the physician will often be reflected by poor results. Treatment is hard when it is based along physiological and scientific lines. A thorough investigation to find the precipitating factors as well as the unknown factor must be made. Treatment must be planned with these physiological and pathological factors as a basis. It may be drugs, one of several diets, dehydration, or in some cases surgery. In each instance the treatment will be based on the need of the individual case.

Diagnosis is the first step in treatment of any case. In epilepsy this axiom holds true without variation. Before treatment can be instituted we should have an adequate hereditary and constitutional history. The emotional life must be investigated and the vasomotor stability of the individual estimated. The past medical history must be carefully scrutinized with particular reference to trauma, acute infections, and cranio-cerebral disease. A thorough physical and neurological examination with adequate laboratory studies must be made. Special methods of investigation should then be considered. Where focal signs are present, an encephalogram should be done to determine the presence of gross cerebral pathology. This study is routine in some clinics, and, though radical, it has its reward.<sup>9</sup> After these studies we better understand the psychobiological make-up of the patient and we can institute treatment to fit the individual case. No two cases

are exactly alike, and therefore, each requires definite consideration. One is unable to outline a specific treatment that will fit all cases, but the essential directions of the most commonly accepted methods will be given as follows:

1. *Hygienic*.—This form of therapy applies to every case of epilepsy. The essential factors are the improvement of the physical health of the patient. Focal infections should be overcome, especially those relating to the teeth and tonsils. Constipation is a condition with which all epileptics are troubled. It should be treated by proper diet and the judicious use of laxatives. Tobacco and alcohol should be used with extreme care. An outdoor life is a great benefit. This type of treatment is particularly applicable to patients who have an occasional attack in which there are no abnormal findings.

2. *Ketogenic Diet*.—This is a dietary treatment in which the acid-base equilibrium of the body is artificially forced out of balance toward the acid side. It is based upon the known fact that epileptic seizures frequently diminish or cease when acidosis has been induced. Comparatively little is known about the association of the Ph of the blood and epilepsy. Experiments have been carried out to determine if the acidosis acts specifically to counteract some condition which produces seizures or whether another factor associated with it is responsible for the therapeutic effect.

The essential principle of the diet is to feed fats and decrease proteins and carbohydrates to such a degree that acidosis is artificially induced. This diet gives the best results in small children who are having numerous grand and petit mal attacks. Its chief advantage is the skill and care required to prepare the diet. It should never be used where the parents are unintelligent or where economic conditions do not permit a varied diet.

The first step in the diet is to estimate the normal optimum weight of the patient. One gram of protein should be allowed for each kilogram of body weight. Using a chart which can be obtained in any recent book on dietetics, the protein needs are cal-

culated and carbohydrates and fats proportioned in amounts sufficient to produce a ketogenic ratio of two and one-half to one. This diet is used for a period of a week at which time the fat is rapidly increased to a three to one ratio or to a three and one-half to one ratio which should cause acetone bodies to appear in the urine. It is necessary to examine the urine frequently to determine when the desired ketosis is present. The diet is maintained on this basis for an indefinite period. Vitamin concentrates and calcium are given in the form of capsules to take care of any deficiency of this type. The most important points to remember are: (1) all food must be consumed, (2) the diet must be weighed, and (3) frequent examinations of the urine must be made.

3. *Dehydration*.—This treatment is advocated for cases in which seizures seem to be related to an increase in intracranial pressure or cerebral edema. The basis for the treatment is that an epileptic has an accumulation of fluid with an increase in pressure in the cerebrospinal pathways. Fay and Strecker<sup>10</sup> believe that there is a deficiency in the absorption mechanism which causes the accumulation of excess fluid. The treatment is carried out as follows: total fluids are restricted to a low quantity in each twenty-four hours. The amount varies from twelve to thirty ounces of fluid. By fluid is meant water, coffee, tea, milk, fruit juices, gravy, etc. The diet is not restricted, but the fluids in the diet are removed as far as possible. Vegetables are strained, meat is without gravy, potatoes are cooked without water, and bread is toasted. A daily weight chart is kept to aid in determining whether or not the patient is maintaining a strict diet. These patients all lose weight when the diet is first instituted.

In our experience, this treatment benefits patients who have frequent grand mal attacks. As a rule, it is wise to use a small amount of bromide as an adjunct. Dehydration should not be used with patients who do not have a sufficient will power to withstand excessive thirst. Stealing of fluids is such a common occurrence with the



mentally defective and deteriorated patients that no results can be obtained.

4. *Drug Therapy.*—This treatment is applicable to the vasomotor unstable case, the deteriorated, the moral delinquents, and the behavior problem cases. It is the type that is most commonly used and consists of a combination of bromides and luminal in sufficient doses to prevent seizures. These drugs are frequently used in conjunction with other forms of treatment. Its chief disadvantage is that it produces drowsiness and mental dullness in many cases. The great disadvantage of drug therapy is that large enough doses may be given to prevent seizures without correcting the underlying causes.

5. *Mandelic Acid.*—Recently data have been presented on the use of mandelic acid in the treatment of urinary infections. This substance was developed years ago, but its modern use has been limited to the past eighteen months. Its revival was the result of investigations of the substances which gave bactericidal action in the urine of patients on ketogenic diets. It was soon found that acidity produced by the diet was only one of the factors which bring about a bacteria free urine. Fuller<sup>11</sup> showed that the bacteriostatic agent was betaoxybutyric acid. This substance was then *prepared by mouth*, but without effect because it was metabolized so quickly that none was excreted by the kidneys. Rosenheim suggested that a keto acid or hydrox acid should be able to withstand metabolism and could be substituted for the ketogenic diet. Mandelic acid, a fatty acid, was found to be unaltered in the urine following oral administration. It was necessary, however, to acidify the urine to a Ph of five before the mandelic acid was bacteriostatic. Further research resulted in the preparation of Syrup Ammonium Mandelate which provides a convenient means of administering mandelic acid and at the same time obviates the use of additional acidifying drugs.

Correlating these physiological and clinical facts, it occurred to us that mandelic acid might be of value as a substitute for

the ketogenic diet in the treatment of certain cases of epilepsy.

We have used this treatment with four patients. In one case the results have far exceeded our expectations. The patient has had no seizures since November 28, ——. Treatment was discontinued in one case because of the unpleasant symptoms produced by the drug. The third case has been on treatment for about three weeks. At this writing the seizures have been greatly decreased in frequency. The fourth case was discontinued because of lack of cooperation.

The duration of treatment is too short to warrant any conclusions, nor do we advocate mandelic acid for all epileptiform seizures. Rather, it is our hope that others may be induced to try this drug in similar cases and that soon a sufficient number, carefully selected and controlled, will be recorded to establish its clinical value.

6. *Surgical Treatment.*—Surgery is indicated in less than five per cent of cases. It is of advantage where there is a focal irritation which is the primary precipitating cause of the convulsions. The focal irritation may be a tumor, scar tissue, or external pressure. The details of such an operation are not within the scope of this paper, but in cases where surgery is indicated, the results will be uniformly good.

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#### DISCUSSION

DR. W. S. FARMER (Nashville): Mr. President and Members: I do not think that paper should go by without some discussion. It is a most excellent paper covering the subject from the time of Hippocrates down to the present time.

The most important part of the paper of Drs. Turner and Gotten was, to my mind, when they said that any disease plus an unknown "X" may cause convulsions. That is true. I am sorry to say that we do not know any more about the etiology and pathology of what we call idiopathic epilepsy today than we knew two thousand years ago, and if we do not know the etiology of a disease we are somewhat embarrassed as to the treatment. We have to do it empirically as a matter of course.

I have lived under the same roof with between seventy-five and one hundred epileptics for over twenty years, and our treatment is along the line that Dr. Gotten suggested. We give them luminal at night, and laxatives, and that is about the best thing that we have ever done for any of them. If we have ever cured anyone, I know nothing about it.

As I previously said, I could not discuss the etiology because we know nothing about it; the only thing I do know about an epileptic is from the sociological side—I do know, if I may depart a little from the paper, that they are very dangerous human beings; I do know that this has been recognized from time immemorial. Mythology tells us that Hercules killed his wife and all of his children in one of these automatic attacks of epilepsy. They tell us that Hercules was offering a sacrifice to Jupiter and he suddenly stopped, rolling his bloodshot eyes upward with saliva running down his beard; he was in a convulsive state. They thought he had returned to his senses, but he grabbed some instruments and killed his wife and all of his children and was in the act of slaying his father when his brother, Pallas, appeared and threw him on the ground, where he went into a profound sleep. When he awoke the sight of all the dead around him caused him much pain and agony when he was told that he was the author of all this mischief.

When we elbow an epileptic, gentlemen, we

elbow a man who may be an assassin. Why? On account of impetuosity and lack of emotional control and hair-trigger temperaments. Murder by an epileptic oftentimes is just as much a symptom of his disease as larceny is by a parietic. Really and truly, I do not think we ought to think of epilepsy as a disease; it is a symptom, as Dr. Turner has beautifully described, of some unknown "X," or some unknown pathology.

I was delighted to hear the paper, and I hope Dr. Turner will keep on in the study of this disease, and if he or any other doctor can find the etiology of a true epileptic, then he will be the Lindbergh of the medical profession.

DR. C. C. TURNER (closing): Our chief aim in presenting this paper is to stimulate an interest in the epileptic problem. It constitutes a large part of our medical practice. Epilepsy is a social and an economic as well as a medical problem. A great deal can be done for the epileptic, but the medical profession, particularly in the South, must become more epileptic-minded. Patients with this affection demand more than the administration of a few luminal tablets and the veiled inference that that is all that can be done for him. The epileptic constitutes a large per cent among the inmates of our public institutions. Little effort is expended in his behalf in these institutions except to segregate him among his fellows where he can have his fits unmolested. There will be little change in this regime until the medical profession as a whole realizes its obligations to the epileptic and faces the problem with real zeal and understanding of the condition and the many avenues afforded in the direction of treatment by rational therapeutic and surgical procedures. As Dr. Farmer has brought out in his discussion, the epileptic may frequently exhibit psychic equivalents which may assume the proportion of atrocious criminal acts.

DR. NICHOLAS GOTTEN (closing): I should like to emphasize the fact that every epileptic deserves some form of treatment. He deserves an examination and treatment outlined to fit his individual case. Very frequently you will be discouraged with the results you obtain at the first attempt at treatment, but there are five or six types of treatment, and when a case does not respond to one type of treatment, another may give good results. Of course, some cases have to be relegated to institutions, but certainly they should have used every form of treatment which we have available before they are put in an institution.

# THE JOURNAL

OF THE

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H. H. SHOULDERS, M.D., Editor and Secretary

JULY, 1937

## EDITORIAL

### THE ACTIONS OF THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION ON THE RESOLUTION BY KOPETZKY OF NEW YORK

There has been a great deal of misunderstanding with regard to the action taken by the House of Delegates on the resolution referred to.

It would be well for us to bear in mind that the various individuals and agencies in Washington which have interested themselves in the subject of health insurance, sickness insurance, socialized medicine, etc., have started such movements by the appointment of a committee which, allegedly, represents all the interested parties. The facts are organized medicine as such has never been represented on any such group. The doctors selected to serve on such committees have, with uniformity, been selected by those in charge of the promotion of some scheme.

Those who read the resolution referred to will note that it consists, broadly speaking, of two parts:

Part one consists of several very high-sounding and well-drafted *whereases*.

Part two is composed of the *resolves* to do certain things, which, in essence, is a proposal for a federal subsidy to doctors and hospitals upon the condition that some bureau head in Washington determines the local need, the amount, the conditions to be complied with, and who gets it.

This resolution apparently was originated in Washington by a group selected by someone or group to consider what might be done. Certainly organized medicine did not participate and was not invited to.

The resolution as presented was referred to a committee of the house known as the committee on executive session. That committee found that the American Medical Association already had better drawn *whereases* than the resolution. It found also that the American Medical Association had better facts than anybody and also found that the American Medical Association will gladly consider any definite plan or proposal when properly approached by a responsible governmental agency. The New York resolution was not adopted. The report of the committee on executive session was adopted.

This matter is of sufficient importance that the report of the reference committee is reproduced on the editorial page.

### THE REPORT OF REFERENCE COMMITTEE ON EXECUTIVE SESSION

The reference committee has carefully considered the resolutions introduced by the New York delegation and has held hearings at which the details of the principles and proposals were freely discussed.

The Board of Trustees has already reported to this House of Delegates its considered opinion pertaining to the reorganization, in one consolidated department, of the activities of the federal government having to do with the promotion of health and the prevention of diseases. Copies of this statement, as printed in the JOURNAL and in the *Handbook* of the House of Delegates, page 107, were transmitted to the President of the United States and to others in official position in Washington, and the attention of constituent state medical associations was especially called to the action of the board.

"Recognizing that committees of the Senate and of the House of Representatives of the United States government and a special committee appointed by the President are at this time concerning themselves with



the reorganization of government activities with a view to greater efficiency and economy, and recognizing also that the President, in his opening address to Congress, indicated that he would shortly present to the Congress recommendations for such reorganization of governmental activities in the executive branches, and recognizing moreover the great desirability that all activities of the federal government having to do with the promotion of health and the prevention of disease might with advantage be consolidated in one department and under one head, the Board of Trustees of the American Medical Association would recommend that such health activities as now exist be so consolidated in a single department which would not, however, be subservient to any charitable, conservatory, or other governmental interest. It has been repeatedly said that public work is the first problem of the state. It is the opinion of the Board of Trustees that health activities of the government, except those concerned with the military establishments, should not be subservient to any other departmental interests. This organization and consolidation of medical departments need not under present circumstances involve any expansion or extension of governmental health activities, but should serve actually to consolidate and thus to eliminate such duplications as exist. It is also the view of the Board of Trustees that the supervision and direction of such medical or health department should be in the hands of a competently trained physician, experienced in executive administration."

Since the House of Delegates during this session has already approved this action of the Board of Trustees your reference committee deems it unnecessary to submit for your consideration that portion of resolutions which deals with this subject.

Your reference committee recognizes that certain principles stated in the resolutions presented by the New York delegation have been considered by the House of Delegates on previous occasions and are matters of record. These include, for example, the recognition of the primary im-

portance of public health, the opposition to compulsory sickness insurance, and the separation of the problem of economic need and the distribution of medical service.

The extension of medical service to the indigent has been given careful consideration by the board of trustees as reported on page 108 of the *Handbook* of the House of Delegates, 1937, and was approved by this house during its session, June 8, 1937.

"In the past the medical profession has always been willing to give of its utmost for the care of those unable to pay. The available evidence indicates that today throughout the United States the indigent are being given a high quality of medical care and medical service. Nevertheless, the advances of medical science have created situations in which a group of the population neither wholly indigent nor competent financially find themselves under some circumstances unable to meet the costs of unusual medical procedures. The Board of Trustees of the American Medical Association points out the willingness of the medical profession to do its utmost today, as in the past, to provide adequate medical service for all those unable to pay either in whole or in part. Members of the medical profession, locally and in the various states, are ready and willing to consider with other agencies ways and means of meeting the problems of providing medical service and diagnostic laboratory facilities for all requiring such service and not able to meet the full cost thereof. These are problems for local and state consideration primarily rather than problems of federal responsibility. The willingness of the medical profession to adjust its services so as to provide adequate medical care for all the people does not constitute in any sense of the word an endorsement of health insurance, either voluntary or compulsory, as a means of meeting the situation."

The American Medical Association is cognizant of the medical needs of the people of the United States; it is genuinely interested in all plans for providing and distributing medical care. The records, reports, source material, and experience of

the association are of great value. They are at the service of agencies contemplating the development and operation of plans for medical care. These factual data, source material, and experience are readily available for use in promoting and protecting the health of the American people.

Your reference committee recommends that the bureaus, councils, and committees of the association continue their studies of the need for and the methods of distributing medical care to the end that the American Medical Association shall continue to do everything possible to promote and protect the health of the American people.

The American Medical Association reaffirms its willingness, on receipt of direct request, to cooperate with any governmental or other qualified agency, and to make available the information, observations, and results of investigation, together with any facilities of the association.

THOMAS MCGOLDRICK, New York.

J. H. CANNON, South Carolina.

E. H. CARY, Texas.

E. F. CODY, Massachusetts.

JOHN H. FITZGIBBON, Oregon.

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#### FEE SPLITTING

In the issue of *Liberty Magazine*, dated July 10, 1937, there appears a story by Mr. Frederick L. Collins on the subject of fee splitting. The title of the article is "Can Doctors End the Fee Racket?"

All the statements of fact and conclusion in the article are based on data collected in New York City.

The author takes due notice of the fact that the organized profession holds to the view that such a practice is a crime. Not only is it held to be a crime, but the profession has taken every step possible to stamp it out. We are compelled to admit, however, that the crime undoubtedly is practiced to some extent in spite of diligent effort on the part of medicine to correct it.

If we were inclined to argue the question, we would say that the data collected in New York City, in our opinion, would not be representative of the country as a

whole. As is the case in any large city, New York has some of the best and the worst of everything. The racket of fee splitting can be carried on in New York City with less likelihood of being detected than is the case in smaller cities. Too, the temptations are greater there.

The conditions of practice in New York City are quite different from what they are in smaller towns and cities. The institutions and closed staffs often make the going hard for a young man with ability and ambition.

Attention should be directed to the fact that the author cites one specific instance of fee splitting without giving the names of the two doctors involved. Too, the unfortunate woman was rescued without cost by the kindly acts of a real doctor.

The author's conclusions as to the prevalence of the practice in New York City are based upon statements of opinions by a doctor, not on factual data.

All in all, we doubt the value of such an article as a means of improving the situation. It will be read by people incapable of making discriminations. Many readers will draw the conclusion that a majority of doctors are racketeers when the opposite is true.

The laws against fee splitting are difficult to enforce, for the simple reason that both the parties to the split are equally guilty before the law and, therefore, neither will betray the other.

We are convinced that the author of the article referred to is motivated by a genuine desire to correct an evil we all admit exists, though not to the extent some statements in the article would lead one to believe. These very excesses in the article serve to destroy its effectiveness.

Heaven knows we doctors would welcome steps on his part to detect the crime wherever committed, and to bring the guilty to justice. If the article has the effect of stimulating some good honest man with ability as a detective to find the guilty parties, he will have done a fine thing, and organized medicine, undoubtedly, would cooperate.

THE ADDRESS OF SENATOR J. HAMILTON  
LEWIS OF ILLINOIS TO THE HOUSE OF  
DELEGATES OF THE AMERICAN MEDI-  
CAL ASSOCIATION

The circumstances under which Senator Lewis appeared before the House of Delegates, the address he made, and the reactions that have followed constitute a series of interesting developments.

In the first place, Senator Lewis requested the privilege of appearing before the association. He was granted the privilege of appearing before the House of Delegates in executive session. Certainly the House of Delegates was not only willing, but glad to extend to Senator Lewis such a courtesy.

In his address Senator Lewis made it appear that certain movements are on foot that he is not in sympathy with; at the same time he left the impression that certain vital changes are in the offing and that medicine should prepare for them.

The address was published in the *Journal* of the American Medical Association under date of June 26, 1937.

The following paragraph serves to indicate something of the trend of thought in the mind of Senator Lewis:

"But, doctors, the question for you is not whether you like it or whether you don't; whether within yourselves you feel you are better for it individually or not. The question for you is, What is to be done about it? I want you to recognize one of those who recall that all your past has been that of the doctor and its patient. The patient steps up now and says, 'I have a voice unto myself. I am the subject of this treatment, and I am either to be the beneficiary or the victim of your procedure.' Yes, and then he is having those around him that teach, 'Well, what right has this man anyhow?'"

We admit that it was not easy to follow the senator. He left the impression that the federal government is seeking to regard the individual citizen as a creature of the government. It necessarily follows that the federal government will recognize the doctor not only as a creature of the government, but as a servant of the government.

It would therefore be the duty of the government to order the doctor to render services to the needy under any and all conditions, and the doctor in turn would look to the government for compensation just as other government employees do.

In the paragraph quoted the senator apparently loses sight of the fact that there are other existing circumstances of practice. The patient not only has rights that are recognized by the profession, "A voice unto himself," he has complete control. He may call a doctor, and if he does not like the opinion given, he may call another, or another, or another. If a certain line of treatment or a surgical operation is advised, he can accept or reject it. If he regards the fee of the doctor as being excessive, he can go to court and have the amount adjudicated according to services and circumstances by a jury.

The suggestion made by the senator concerning the relationship between the government, patients, and doctors, in its essence, represents the Old World's conception of the citizen as being the creature or servant of the government. The American attitude is the opposite. The idea expressed in our constitution is that governments are established among men to accomplish certain ends.

In so far as the senator portrays the thinking that is going on in Washington, the address was of great value from an educational point of view.

Some of the reactions that have taken place up to now are interesting. The following is a resolution adopted by the Council of the Medical and Chirurgical Faculty of the State of Maryland. It is so well expressed that we take the liberty of reproducing it:

"At a special meeting of the Council of the Medical and Chirurgical Faculty of the State of Maryland held on June 17, 1937, the attention of the council was called to a speech made at the Atlantic City meeting of the American Medical Association by Senator J. Hamilton Lewis on June 10, 1937.

"You, no doubt, saw newspaper accounts



of this speech under date of June 11, 1937. There was also an account in the magazine *Time*—June 21, 1937, page 26—in which the subject was reviewed at some length.

“At the special meeting of the Council of the Medical and Chirurgical Faculty of the State of Maryland, above referred to, the following resolution was unanimously adopted:

“‘At the Atlantic City meeting of the American Medical Association, June, 1937, Senator J. Hamilton Lewis of Illinois appeared and delivered an address concerning the future relations between the state, the physician, and the patient. He stated that as chairman of a senate subcommittee he came to the American Medical Association for guidance and advice in certain aspects of his duties. At the conclusion of his talk the House of Delegates referred the matter to the board of trustees for consideration and action.

“‘The Council of the Medical and Chirurgical Faculty of the State of Maryland, being informed of the nature of Senator Lewis’ views and the course that he predicts the future of medicine will take, herewith expresses its complete antagonism to any such development. Specifically we repudiate the view that the state does, or in the United States of America has any right to, regard the individual as a mere instrument for the execution of its purposes, in peace or war, and to that end may enforce the services of the medical profession to maintain the health of the citizen, without respect to the desires of either patient or physician. Not only is this view of governmental relations and powers a grave threat to the freedom, the quality, and the scientific development of the medical profession; even more important is the fact that it completely subverts the traditional rights of American citizens and is a treasonable betrayal of principles of our democracy. We believe that the government has no direct concern with the health of the individual. Under its police powers, which assure the individual protection from the acts of others, it is concerned to prevent the spread of contagion and to restrain in-

dustrial conditions that are a menace to health and safety. The individual otherwise is free to take such care of his own health as seems best to him. Also, in general, the relation between physician and patient is a personal one beyond the concern of the government. In our view, the state is the servant of the people, not its master.

“‘Holding these opinions, not merely as abstract theories, but as a sacred inheritance from our fathers and a sacred trust to be passed on to our children, we respectfully request the board of trustees of the American Medical Association as follows:

“‘1. That they publicly and emphatically repudiate the relationship of the government to the physician and patient envisaged in Senator Lewis’ address;

“‘2. That they publicly and emphatically call to the attention of the people of the United States the danger that threatens their freedom as citizens and individuals;

“‘3. That they refuse, in the name of organized medicine, to have any share or responsibility in the introduction of such a scheme, by giving advice, the suggestion of personnel, or even by tacit acquiescence;

“‘4. That, on the contrary, they enlist the active and vigorous opposition of the entire medical profession against the scheme, to the extent, if possible, of pledging them to refuse cooperation in any such plan that may be adopted.’

“P. S.—I am sure the Council of the Medical and Chirurgical Faculty of the State of Maryland would appreciate an expression of the reaction of your medical society to this matter.—WALTER D. WISE.

“Copies sent to the President of the United States, Senator J. Hamilton Lewis, Maryland senators and representatives in Washington, secretaries of the state medical societies, board of trustees of the American Medical Association, Dr. Olin West, secretary of the American Medical Association, and the secretaries of the compo-

nent societies of the Medical and Chirurgical Faculty of the State of Maryland.”

The medical profession is still in the middle of the road, the road that leads to progress along sane lines within our democratic institutions.

#### THE GREAT TRAGEDY OF 1936

Some years ago a health propagandist coined the phrase, “Public health is purchasable.”

The impression he intended to create was that the more money the government appropriates for public health, the better the public health will be.

Within certain narrow limitations the statement is true. The purification of the water supply of an entire city will serve to eliminate a large number of water-borne diseases. The destruction of the body louse serves to prevent the diseases transmitted by the body louse. But the statement does not hold where individual health is involved.

Welfare agencies of one sort or another have convinced politicians anxious to be convinced that the expenditure of large sums of money by welfare agencies would have a beneficial effect corresponding to the amount of money spent.

In the year 1936 welfare agencies of government, state and national, spent the largest sum of money that was ever spent in the history of the world in a similar period of time for human relief and welfare.

It is logical to ask the question, “Did this enormous expenditure accomplish welfare?” Of course, the agencies responsible will show pictures and cite figures to prove that it did.

The most reliable answer is found in the gross mortality figures for the year 1936. A bulletin issued by the Bureau of the Census under date of June 7, 1937, shows that the registration area of the United States experienced the highest mortality in 1936 that has been experienced in seven years.

These figures indicate that the expenditure of money by welfare agencies appropriated out of the pockets of taxpayers does not always buy the welfare it was intended

to buy. The welfare agencies doubtless will demand still more money to be spent under their direction to buy welfare. It has not worked.

## DEATHS

Dr. John Roberts, Kingston; Lincoln Memorial University, Medical Department, Knoxville, 1898; aged sixty-seven; died April 29.

Dr. Frank B. Clark, Gainesboro; University of Nashville, Medical Department, 1911; aged fifty-three; died May 7.

Dr. R. E. Lee Smith, Doyle; University of Tennessee, College of Medicine, Memphis, 1889; aged seventy-three; died June 7.

Dr. C. M. Womack, Lawrenceburg; University of Nashville, Medical Department, 1902; aged sixty-four; died June 28.

Dr. E. C. Ramer, Memphis; University of Tennessee, College of Medicine, Memphis, 1928; aged thirty-five; died June 29.

## RESOLUTIONS

The death of Dr. R. E. Lee Smith, at the age of seventy-two years, leaves a vacancy that is felt acutely by both the medical profession and the laity. Dr. Smith, who for fifty years was one of the most beloved physicians of White County, was the son of Dr. Henry Smith, a pioneer doctor of this county, and throughout his career exemplified one of his father's axioms, “’Tis better to rub out than to rust out.” He was a member of his local medical society before it became a component society of the Tennessee State Medical Society, and later a charter member of the White County Medical Society.

We who lived with Dr. Smith realize that a true evaluation of his virtues would sound like gross exaggeration to the uninformed. His life was marked by a sincere reverence of women whom he loved and respected far above the capacity of the average man. His ability to soothe the sick did not end with the alleviation of physical pain, but by a rare gift he could sympathize with

and soothe the spirit of those in need. His life was characterized by a true and practical Christianity, a tireless energy to better his neighbor, reverence to women, and loyalty to his profession and country.

We feel acutely the loss of so valued a man and, realizing that the loss is common to all whom he knew and served, have caused a copy of these resolutions to be furnished Dr. Smith's family, one to be spread upon the minutes of the White County Medical Society, and a copy furnished the JOURNAL of the Tennessee State Medical Society.

*Committee:*

S. E. GAINES.

E. C. MASON.

B. L. UPCHURCH.

On April 29, 1937, after a brief illness, Dr. John Roberts of Kingston died at 12:30 P.M. at his home of a heart attack, thus bringing to a close the lifework of another of Roane County's widely known and most beloved physicians.

Dr. Roberts was born in Roane County, February 11, 1870, and spent his whole life in this county. He received his medical degree from the Medical School of Knoxville, and soon after graduation located in Kingston, where he continued in the practice of his profession until the end of life.

From the beginning of his medical practice he gave promise of a successful career in his profession, and soon built up a large practice in this and adjoining counties. In 1932 he took a four months' postgraduate course at Vanderbilt University, from which he seemed to profit to the fullest extent, and upon his return home he entered into his practice of the healing art with renewed interest and zeal, which he maintained to the end.

Dr. Roberts was a charter member of the Roane County Medical Society and has ever been one of its most active members, always ready to contribute to its success. He served as its president at various times. He was a fluent speaker, and his papers and discussions before the society were always interesting and commanded attention. He was ever loyal to the best tradition of

his profession and was an exponent of its noblest ideals.

*Therefore Be It Resolved by the Roane County Medical Society* in regular meeting assembled on this the fifteenth day of June, 1937:

*First*, That in the death of Dr. John Roberts this society, the medical profession, and the public generally have lost a valuable member, a great and lovable character, and a fine gentleman.

*Second*, That we extend to the family of our departed friend our sincere sympathy in their great loss, and that we commend them to the all-wise and divine Comforter of us all in their sorrow and bereavement.

*Third*, That we furnish a copy of these resolutions to the family of Dr. John Roberts, that a copy be sent to the Tennessee State Medical Association, and a copy be filed with the minutes of the Roane County Medical Society.

*Committee:*

DR. G. P. ZIRKLE.

DR. W. W. HILL.

*Whereas*, on Friday, May 7, 1937, Almighty God in his inscrutable wisdom has seen fit to take unto himself Dr. Joseph W. Williams and Mrs. Della Cooper Williams, valiant son and charming wife of our loyal Dr. G. Victor Williams.

*Therefore Be It Resolved by the Fellows of the Chattanooga Surgeons Club*, That we deeply regret their passing and extend to Dr. Williams and his family our profound sympathy in their great loss and also to his many friends who are privileged to know him and his interesting family.

*Be It Further Resolved*, That these resolutions be spread on the minutes of the Chattanooga Surgeons Club; that a copy of said resolutions be sent to Dr. Williams and to his family; and that a copy be furnished the local press and the Tennessee State Medical Association.

*Signed:*

H. QUIGG FLETCHER, M.D.

J. CULPEPPER BROOKS, M.D.

E. DUNBAR NEWELL, M.D.

J. B. HASKINS, M.D.

EDWARD THOMAS NEWELL, M.D., *Chmn.*

*Committee on Resolutions.*



## NEWS NOTES AND COMMENTS

On June 8 the Memphis Association of Doctors' Secretaries held their annual election, and the following officers will take charge for the ensuing year.

Mrs. S. M. Haney, office manager of the Physicians' Business Bureau, Inc., was elected to serve for the third time as president.

Mrs. Faye Belote, vice-president.

Miss Louise Dunnigan, secretary.

Mrs. Myrtle Brunson, assistant secretary.

Miss Dorothy Dessert, treasurer.

The club entertained the new officers and members with a dinner dance on the Hotel Peabody roof June 17, at which seventy persons were present.

A picnic is being planned for July 17, after which the club will disband until the September meeting.

The American College of Physicians will meet in New York City, April 4-8, 1938, with headquarters at the Waldorf-Astoria Hotel.

Dr. James H. Means of Boston is president of the college and will have charge of the program of general scientific sessions.

Dr. James Alex Miller of New York City has been appointed general chairman of the sessions and will be in charge of the program of clinics and demonstrations in the hospitals and medical schools and of the program of round-table discussions to be conducted at headquarters.

Announcement is made of the sixteenth annual clinical and scientific session of the American Congress of Physical Therapy, September 20-24, at the Netherland Plaza Hotel, Cincinnati.

Physicians, their technical assistants, and nurses working in institutional departments of physical therapy are urged to attend this important session. There will be no registration fee.

Dr. George W. Holcomb announces the

opening of an additional office at 602 Gallatin Road, Nashville.

Dr. C. M. Miller announces the removal of his office to 602-608 Gallatin Road, Nashville.

## WOMAN'S AUXILIARY

President.....	Mrs. W. T. Black
	Memphis
President-elect.....	Mrs. H. E. Christenberry
	Knoxville
Press and Publicity.....	Mrs. B. F. Byrd
	Nashville

*Dear Auxiliary Members:*

Your president, after attending the meeting of the Woman's Auxiliary to the American Medical Association and becoming all puffed up with appreciation and inspiration and feeling sure that it would be no task at all to disseminate her knowledge and ideas gained, is home again to find, due to heat and lack of energy, all her good intentions have "gone with the wind" that she so much enjoyed sleeping under two pair of blankets on the ninth floor of the Hotel Traymore overlooking the ocean.

The program of the meeting was carefully planned, each meeting being held in the morning and ending with a delightful luncheon of different nature each day, leaving the afternoon to be enjoyed as one cared to. In the evening some form of entertainment was planned to partake of as you desired. The exhibit room was indeed a joy. The reports were many, varied, and all most interesting. Your president was sorry that each member of our organization could not have been present to become stimulated to do a bigger and better work. We, who are fortunate in being wives of doctors, should be proud to know that it is our privilege to unite and form auxiliaries to our husbands' society, the one body of men who really make sacrifices for mankind from the time they enter their premedical work until they retire. It is our happy privilege to help and carry on in our little humble way, if in no other way but to study the

*(Continued on page 266)*

# LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. Geo. C. Williamson, Columbia.  
 Vice-President for West Tennessee—Dr. F. K. West, Rossville.  
 Vice-President for Middle Tennessee—Dr. Jack Witherspoon, Nashville.  
 Vice-President for East Tennessee—Dr. Andrew Smith, Knoxville.  
 Secretary—Editor—Dr. H. H. Shoulders.  
 Assistant Secretary—Editor—Dr. W. M. Hardy.

## TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville.  
 Dr. A. F. Cooper, Goodwyn Institute Building, Memphis.  
 Dr. E. R. Zemp, Walnut Street, Knoxville.  
 Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.  
 Dr. W. L. Williamson, 915 Madison Ave., Memphis.

## COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.  
 Second District—Dr. S. R. Miller, Knoxville.

Third District—Dr. Hiram A. Laws, Jr., Chattanooga.  
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 Seventh District—Dr. C. D. Walton, Mt. Pleasant.  
 Eighth District—Dr. J. R. Thompson, Jackson.  
 Ninth District—Dr. E. H. Baird, Dyersburg.  
 Tenth District—Dr. W. B. Burns, Memphis.  
 Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

Delegates to the American Medical Association—  
 Dr. E. G. Wood, Knoxville; East Tennessee.  
 Dr. H. H. Shoulders, Nashville; Middle Tennessee.  
 Dr. H. B. Everett, Memphis; West Tennessee.

## Alternates—

Dr. E. T. Newell, Chattanooga; East Tennessee.  
 Dr. J. O. Manier, Nashville; Middle Tennessee.  
 Dr. E. C. Ellett, Memphis; West Tennessee.

## OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	VICE PRESIDENT	SECRETARY-TREASURER
Anderson	H. D. Hicks, Clinton	J. Sam Taylor, Clinton	J. S. Hall, Clinton
Bedford	James W. Reed, Belfast	James N. Burch, Shelbyville	W. B. Barton, Berkeville, Assoc. Sec.
Blount	H. A. Calloway, Maryville	G. D. Lequire, Maryville	W. H. Avery, Shelbyville
Bradley	J. Lake McClary, Cleveland	W. C. Stansberry, Cleveland	W. C. Crowder, Maryville
Campbell	G. B. Brown, Jellico	R. W. Lewis, Westbourne	C. H. Taylor, Cleveland
Carroll	E. W. Hillsman, Trezevant		R. J. Buckman, LaFollette
Carter	O. F. Agee, Elizabethton	A. R. Collins, Watauga Valley	J. H. Williams, McKenzie
Chester, Henderson, and Decatur	H. T. Pitts, Henderson		E. T. Pearson, Elizabethton
Cocke	J. E. Hampton, Newport	W. C. Ruble, Newport	L. C. Smith, Henderson
Cumberland	E. W. Mitchell, Crossville		Fred M. Valentine, Newport
Davidson	Jack Witherspoon, Nashville	T. D. McKinney, Nashville	V. L. Lewis, Crossville
Dickson	L. F. Loggin, Charlotte		J. P. Gilbert, Nashville
Dyer, Lake, Crockett	J. P. Baird, Dyersburg	B. G. Marr, Dyersburg (Dyer)	R. P. Beasley, Dickson
		W. L. Sumner, Ridgely (Lake)	C. L. Denton, Dyersburg
		J. O. McKinney, Friendship (Crockett)	
Fayette and Hardeman	L. D. Pope, Grand Junction	F. K. West, Rossville	Wiley D. Lewis, Bolivar
Fentress	C. A. Collins, Wilder	A. H. Crouch, Forbus	J. P. Sloan, Jamestown
Franklin	Alfred Parker Smith, Winchester	Geo. E. Bogart, Sherwood	John M. Hardy, Sewanee
Gibson	H. P. Clemmer, Milan	J. W. Allen, Rutherford	F. L. Roberts, Trenton
Giles	J. G. Waldrop, Lewisburg	A. W. Deane, Pulaski	J. F. Booth, Pulaski
Greene	W. T. Mathes, Greeneville	M. A. Blanton, Mosheim	I. E. Phillips, Greeneville
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	R. A. Purvis, Morristown	P. L. Henderson, Morristown
Hamilton	E. A. Gilbert, Chattanooga	A. M. Patterson, Chattanooga	J. Marsh Frere, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	Otis Whitlow, Savannah	J. V. Hughes, Savannah (Hardin)	O. H. Williams, Savannah
		V. H. Crowder, Lawrenceburg (Lawrence)	
		Paul Wylie, Hohenwald (Lewis)	
		J. W. Frost, Linden (Perry)	
		J. T. Keeton, Clifton (Wayne)	
Haywood	F. P. Hess, Bells	John P. Shearon, Gates	Roy M. Lanier, Brownsville
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Hickman	L. F. Pritchard, Only	C. V. Stephenson, Centerville	W. K. Edwards, Centerville
Humphreys			W. W. Slayden, Waverly
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Knox	Henry Clay Long, Knoxville	A. R. Garrison, Byington	Thos. E. Miller, Ripley
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Lincoln	R. E. McCown, Fayetteville	R. T. Odom, Fayetteville	J. R. Watkins, Loudon
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Madison	J. C. Pierce, Mercer	John E. Powers, Jackson	D. B. Andrews, Columbia
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		R. S. Perry, Columbia, R. F. D.	
McMinn	Boyd McClary, Etowah		D. F. Seay, Englewood
McNairy	John R. Smith, Selmer		H. C. Sanders, Selmer
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Obion	M. T. Tipton, Union City		W. B. Harrison, Union City
Overton			A. B. Qualls, Livingston
Polk	A. W. Lewis, Copperhill	H. P. Hyde, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	R. L. Witherington, Cookeville	Thurman Shipley, Cookeville
Roane	J. C. Fly, Kingston	L. A. Killeffer, Harriman	W. W. Hill, Harriman
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Rutherford	T. J. Bratton, Woodbury	John F. Cason, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	Pitney Phillips, Robbins	Milford Thompson, Oneida
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		J. R. Butler, Mountain City (Johnson)	
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Wilson	M. H. Wells, Watertown	R. N. Buchanan, Jr., Lebanon	R. B. Gaston, Lebanon

## COMMITTEES

The following is a list of the standing committees of the Tennessee State Medical Association provided for in the constitution and by-laws and appointed by the proper authority, together with some special committees appointed under the authority of a resolution by the House of Delegates.

Some of the committees are appointed for a definite period. In such instances the appointment of the committeeman expires with the meeting of the House of Delegates in the year stated opposite his name.

### COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville.  
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Dr. Frank Harris, Chattanooga.  
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Dr. E. G. Wood, Knoxville.  
Dr. H. B. Everett, Memphis.  
Dr. Lee K. Gibson, Johnson City.

### COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. L. W. Edwards, Chairman, Nashville (1939).  
Dr. E. W. Cocke, Memphis (1941).  
Dr. Battle Malone, Memphis (1940).  
Dr. Tom Barry, Knoxville (1938).  
Dr. T. R. Ray, Shelbyville (1942).

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Dr. W. C. Dixon, Chairman, Nashville (1941).  
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Dr. Hiram A. Laws, Chattanooga (1939).  
Dr. Tom Mitchell, Memphis (1938).  
Not filled.

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Dr. S. R. Miller, Knoxville.

### COMMITTEE ON MEDICAL DEFENSE

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Dr. W. O. Baird, Henderson (1939).  
Dr. J. M. Lee, Nashville (1939).

### COMMITTEE ON MEMOIRS

Not filled.  
Dr. H. Quigg Fletcher, Chattanooga.  
Dr. E. L. Ellis, Maryville.  
Dr. L. J. Lindsey, Covington.  
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Not filled.  
Not filled.

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Dr. Franklin B. Bogart, Chattanooga.  
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Dr. John M. Lee, Nashville.  
Dr. J. O. Manier, Nashville.  
Dr. W. L. Williamson, Memphis.  
Dr. John B. Youmans, Nashville.



lives of our great men, and to promote a friendly feeling among our doctors' families.

MRS. W. T. BLACK, *President*.

#### CARTER COUNTY

The Woman's Auxiliary to Carter County Medical Society held its first meeting Tuesday, April 20, in the Franklin Club with the president, Mrs. John B. Shoun, presiding. The topic for the day's program was "Current Events in Medicine" in order "to Promote Acquaintanceship Among Physicians' Families." Their monthly meetings during the year of 1937-1938 will be Dutch luncheons in the Franklin Club, meeting the third Tuesday of each month.

#### RUTHERFORD AND CANNON COUNTIES

Mrs. Matt Murfree, the retiring president, presided over the final meeting of the year of the Woman's Auxiliary of Stones River Medical Academy, Friday afternoon, May 21. Mrs. M. C. McCrary was hostess at her home in Woodbury. An important feature of the business meeting was the election of officers for the new year. Mrs. McCrary was elected as the new president; Mrs. Sidney Smith, vice-president; and Mrs. John Cason, secretary-treasurer. Plans were made for the auxiliary to redecorate the Nurses' Home of Rutherford County Hospital. Plans were also made for the annual picnic for auxiliary members and their husbands to be held the third Friday in June at the farm of Dr. J. F. Adams at Woodbury. A feature of the afternoon's program was a paper on Margaret Sanger, which was prepared by Mrs. D. P. Morris, and a musical and dance program given by local artists.

#### DAVIDSON COUNTY

Honoring their husbands, members of the Auxiliary to the Nashville Academy of Medicine entertained Tuesday evening at their annual picnic celebrating "Doctors' Day" at Lake-View, the home of Dr. and Mrs. James T. Hayes. Supper was served on the

lawn at a long table which was decorated with garden flowers. Japanese lanterns were used to light the scene. Mrs. Joe Travenick, Jr., and Mrs. Theodore Morford were co-chairmen of the affair. Mrs. Oscar G. Nelson is the president of the auxiliary.

#### SHELBY COUNTY

Dr. Harry W. Ettelson was the guest speaker at the April meeting of the Woman's Auxiliary of Shelby County Medical Society which was held in the University Center. Splendid reports were given at the business session. Resolutions of sympathy were read on the death of Dr. Otis S. Warr and Dr. Joseph I. Mitchell. Among the visitors present were Mrs. J. C. Dunn of Lewiston, Montana, and a number of wives whose husbands were attending the Federation of American Societies for Experimental Biology. Following the meeting Mrs. W. T. Brown, president, invited the guests and members into the auxiliary rooms where a beautifully appointed luncheon had been prepared by the chairman, Mrs. T. D. Moore, and her committee.

### MEDICAL SOCIETIES

#### *Anderson County:*

At the regular monthly meeting of the Anderson County Medical Society held on June 7 the following members were present: Drs. Hicks, DuBard, Jennings, Cox, Mitchell, Rule, Huff, and Hall.

The society approved the plan of the committee on postgraduate medical education in sponsoring the postgraduate instruction in obstetrics, and pledged their cooperation and urged the selection of Clinton as one of the towns in which to hold the course.

The society also endorsed the Health and Accident Insurance Policy for Physicians as recommended by the committee from the State Medical Association.

The following papers were read:

"Nephritis," Dr. Thomas Jennings.

"Lead Poisoning with a Case Report,"  
Dr. Horton DuBard.

DR. J. S. HALL,  
*Secretary.*

DR. HORTON DUBARD,  
*Associate Secretary.*

*Fayette-Hardeman County:*

The Fayette-Hardeman County Medical Society met May 28. The following papers were read:

"Infant Diarrheas," by Dr. Edward Clay Mitchell, Memphis.

"Parenteral Infections," by Dr. John J. Shea, Memphis.

*Hamilton County:*

May 20—"Pathological Uterine Bleeding," by Dr. E. Dunbar Newell.

May 27—"Hospital Management," by Dr. E. B. Elder. "Obscure Pain in the Region of the Kidneys and Ureters," by Dr. G. M. Roberts.

June 3—"Gall Bladder," by Dr. H. Quigg Fletcher.

July 1—"The Use of Avertin as a Basal Anesthetic from My Personal Experience, Covering a Period of Two Years of Its Use," by Dr. A. J. Guinn. "Venereal Disease," by Dr. J. W. Bradley.

July 14—An address by Dr. John Shelton Horsley, Richmond, Virginia.

*Hardin, Lawrence, Lewis, Perry, and Wayne Counties:*

The Five-County Medical Society met in Lawrenceburg June 29. The following papers were read:

"Osteomyelitis," by Dr. A. A. Jackson, Florence, Alabama. Discussion opened by Drs. Dexter Wood, Waynesboro, and W. E. Boyce, Flatwoods.

"Diagnosis and Treatment of Syphilis," by Dr. O. N. Bryan, Nashville. Discussion opened by Drs. Leo C. Harris, Lawrenceburg, and W. E. Turner, Lobelville.

"The Importance of Calcium and Phosphorous and Vitamins A, B, C, and D in the Child's Diet," by Dr. J. J. Reavis, Lawrenceburg. Discussion opened by Drs. R.

H. Black, Waynesboro, and W. O. Thomas, Savannah.

"Acute Abdominal Conditions in Infancy and Childhood," by Dr. George C. Williamson, Columbia. Discussion opened by Drs. Henry N. Moore, Savannah, and C. C. Stockard, Lawrenceburg.

The next meeting of the society will be held in Hohenwald July 27.

*Knox County:*

June 29—"The Anatomical and Physiological Basis of Hypertension with Slides," by Dr. E. R. Zemp. Discussion by Drs. Carmichael, Guynes, and Roberts.

## OTHER MEDICAL SOCIETIES

The Tennessee Valley Medical Association and Postgraduate Assembly held its third annual meeting at Knoxville, Tennessee, June 23, 24, and 25, 1937. The meeting was a great success and gave the doctors from the Tennessee valley a varied three-day postgraduate course by men of prominence in the profession. A résumé of the program was as follows:

*Medicine.*—Virgil E. Simpson, Louisville; Allen C. Eustus, New Orleans; Seal Harris, Birmingham; Alfred Friedlander, Cincinnati; Francis T. Hunter, Boston; James E. Paullin, Atlanta.

*Surgery.*—George Crile, Cleveland; H. H. Shoulders, Nashville; John S. Horsley, Richmond; Wm. D. Haggard, Nashville; Robert L. Sanders, Memphis.

*Obstetrics.*—Pierce Rucker, Richmond; Lynde Woodward, Cincinnati.

*Genitourinary.*—Hugh Young, Baltimore.  
*Otolaryngology.*—Wm. G. Kennon, Nashville.

*After-Dinner Speaker.*—Harvey T. Harrison, Little Rock.

*Pediatrics.*—Angus McBryde, Durham.  
*Orthopedic.*—Willis Campbell, Memphis.  
*X-ray.*—Leon J. Menville, New Orleans.

*Officers.*—E. A. Guynes, president; E. G. Wood, president-elect; Jesse C. Hill, secretary-treasurer; E. R. Zemp, chairman of Board of Trustees.

## ABSTRACTS OF CURRENT LITERATURE

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

Various Anesthetic Agents, Especially Some of the Newer Preparations. Lundy and Tuohy. The Journal of the Michigan State Medical Society, June, 1937.

Procaine is recognized as the local anesthetic of choice. Many operations of an extensive nature can be performed with it, including abdominal sections, reductions of fractures, labor, and operations on the rectum. Metycaine may be used after a skin test for hypersensitiveness in those who are sensitive to procaine.

Spinal anesthesia is useful, but it is contraindicated in subjects with marked debility and with a low percentage of hemoglobin. Cyclopropane is indicated in those suffering with pulmonary disease. May be used intracheally. Divinyl ether may be used with advantage in short operations, as induction is rapid and recovery equally so.

The authors consider avertin and the barbituric acid derivatives as more suitable for basal anesthesia than to depend upon them alone with the exceptions of evipal and pentothal sodium. Both produce transient anesthesia when administered intravenously and act very nicely for operations of short duration when much relaxation is not required. Coramine may be combined with them to counteract respiratory depression.

The use of chloroform is purposely avoided. Divinyl ether is used instead of ethyl chloride in general anesthesia. When using ethyl chloride as a local anesthetic, it is sprayed around the area, producing a ring of frozen tissue, and the incision is made within this ring.

### DERMATOLOGY

By E. E. BROWN, M.D.  
Doctors Building, Nashville

Treatment of Radiodermatitis in Hyperkeratotic Stage, Preliminary Report. Herman Goodman, M.D., New York City. Archives of Dermatology and Syphilology, May, 1937.

Two cases were reported in which he used an oil emulsion in water with good results.

Method of preparation and use: Four parts of triple-pressed stearic acid and one part of hydrous wool fat are melted, care being taken to avoid scorching the mixture, and added to a warmed mixture of one part of triethanolamine and enough water to make one hundred parts. The temperature should never be above sixty degrees. The two mixtures are to be stirred slowly, preferably

with a mechanical agitator, until after they have passed through a gummy stage and a creamy liquid is formed. If the preparation is agitated too severely, there is much froth, and this should be avoided.

The emulsion is patted on the area of the hyperkeratotic radiodermatitis as frequently as the exposure of the parts permit and dried in situ.

### OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.  
Suite 316 Doctors Building, Nashville

The Importance of Routine Thyroid Study in Prenatal Care. Jas. R. Bloss. S. Med. J., 30: 637, June, 1937.

This paper directs the attention to a practically unexplored field which gives promise of a rich harvest of results in the forestalling of many maternal and fetal catastrophes.

Stimulated by two years of successful work in studying thyroid deficiency in patients presenting sterility problems, the author has made routine observations on all pregnant women. It was felt that this might prove of value prophylactically.

Observations confirmed Williams' statement that thyroid dysfunction may result in a defective germ plasm, which in turn causes premature termination of pregnancy, and if allowed to continue, monstrosities result. Hair lips, cleft palates, spina bifida, and one case each of anencephaly and congenital absence of one fibula have occurred in infants whose mothers suffered from hypothyroidism.

Note is made that prolonged nausea and vomiting which is persistent are often found occurring in patients with hypothyroidism. Relief has been obtained by suitable doses of thyroid substance, the therapeutic test.

De Lee stated that Lange believed the thyroid had much to do with toxemia, "but the theory had not awakened general interest." Not infrequently at a prenatal visit an elevation of blood pressure, albuminuria, headaches, and in some cases disturbance of vision were noted in a patient whose thyroid studies had been normal early in pregnancy. Following a minus reading and appropriate doses of thyroid substance the toxic symptoms were ameliorated. Personal experience convinces me that there is more than just a coincidental connection between hypothyroidism and a disturbance of metabolism which results in the toxic phenomena called pre-eclamptic toxemia.

Patients with mild hyperthyroidism are common, but are not alarming. However, high readings show a definite connection with fetal death late in pregnancy and prenatal uterine hemorrhage.

"The investigations into thyroid activity have shown results which would seem to be of prognostic significance concerning prenatal or natal maternal or fetal morbidity and mortality."



## OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
Doctors Building, Nashville

A Second Group of Cases of Arachnodactyly. R. I. Lloyd. *American Journal of Ophthalmology*, June, 1937.

To six cases reported two years ago (see *American Journal of Ophthalmology*, 1935, v. 18, p. 995) the author adds nine more, which emphasize hereditary influence, but do not help explain the origin of the condition. Spherophakia and microphakia were found and appeared to be advanced stages of congenital dislocation of the lens. Some of the findings are syringomyelic in type, and are associated with such trophic disturbances as heterochromia and Horner's syndrome.

Dr. W. G. Kennon reported a case of arachnodactyly before the Nashville Academy of Medicine a few weeks ago.

## ROENTGENOLOGY

By FRANKLIN B. BOGART, M.D.  
Medical Arts Building, Chattanooga

Radiation Therapy of Malignant Lesions of the Lip. Ira I. Kaplan, M. C. *Radiology*, May, 1937, Vol. 28, No. 5.

Treatment of the malignant lip is based upon the position, extent, and whether or not ulcerated and infected, whether flat or indurated, and whether or not lymphatic glandular involvement is present.

The irritating agent or agents should be eliminated before treatment is instituted. The hygienic care of the mouth is important and should be attended to before treatment is carried out. By this procedure much infection and bone necrosis can be avoided. Of 160 cases, thirty-four were persistent pipe smokers, thirty-five cigarette smokers, and four were cigar smokers. Eighty-five smoked very occasionally or not at all.

Biopsy is advisable. In ulcerated cases it is an easy matter. In some cases it may remove the entire lesion, but in such cases procedures should be followed by thorough irradiation.

Squamous-celled carcinoma is the common type, and the usual location is the lower lip.

Treatment is carried out by a combination of surgery and irradiation or by irradiation alone. In all cases of thorough irradiation of the neck gland area, draining the lip lesion should proceed the treatment of the lip lesion. The irradiation of the neck can be accomplished by X-ray, using high voltage and heavy filtration or by using radium, using a large radium pack. When X-ray is used daily, doses of 150 r to 200 r are given to the right and left sides of the neck on alternate days. In the usual case the factors are 200

KVP; four to five ma. five-tenths millimeter copper plus one millimeter aluminum at forty to fifty centimeters distance. The size of the fields vary, usually nine by twelve centimeters or ten by fifteen centimeters. If no palpable nodes are present, a dose of from 800 r to 2,000 r is given to each side of the neck in ten to sixteen days. In advanced cases with definite glandular involvement in the neck, 3,000 r to 5,000 r are used, using a modified Coutard technique—two millimeters copper filtration at fifty to sixty centimeters distance, delivered over a thirty-day period. Where a neck dissection has been decided on, 900 r is given to each side of the neck over a six-day period, 150 r being given to each side of the neck each day. In these cases operation should be done three weeks from the beginning of the X-ray treatment.

The local lesion may then be treated surgically, followed by irradiation or by irradiation alone.

*Surgery.*—In cases in which the lesion is localized, with slight induration, particularly in old persons and in which no metastatic involvement is visible or palpable, the entire lesion may be removed surgically and followed by thorough irradiation.

*Radium.*—The local lesion may be treated by radium, which can be applied in surface molds or interstitially, using either gold radon seeds or needles with five-tenths millimeter platinum filtration. When a mold is used for surface application, 1,500 to 3,500 milligram hours are used over a period of from two to six days, and when the interstitial technique is followed, 300 to 500 milligram hours per cubic centimeter are administered over a period of from two to five days.

*X-ray.*—When radium is not available, when the lesion is large, ulcerated, infected, or when the physician prefers, the lesion may be treated with X-ray. The author uses low voltage 100 to 150 KV with no filtration and gives four to ten erythema doses within a twenty-one-day period. This is a caustic dose, and the resulting reaction is treated as one would a second-degree burn.

*Recurrences.*—When recurrences occur at the site of the lesion they are treated as the original lesion; when small, usually by surgical excision followed by irradiation. When nodes in the neck persist, radon seeds or needles, containing one milligram or less of radium element, may be inserted into the node.

During the course of the treatment, the general body health should be cared for.

*Conclusions.*—A study of our cases leads us to the following conclusions:

Carcinoma of the lip is most commonly present in males over forty years of age.

It rarely occurs on the upper lip.

Chronic irritation is an important factor in the etiology, and excessive smoking is an important factor.

Syphilis is of little influence, as only a very small number, less than two per cent, gave a positive Wassermann reaction.

Metastatic lymph nodes were not common concomitant occurrences in most cases and, when present, indicate advanced disease with poor prognosis. Local recurrence and metastasis were infrequent sequelae in cases which did not exhibit lymph node involvement before the local lesion was treated. Lymph node metastasis occurred infrequently in cases in which the local lesion had been completely eradicated by intensive treatment.

The results of irradiation in cancer of the lip, based on our study of 160 cases, compare favorably with those following surgery, with the added advantage of no immediate operative mortality; moreover, mutilating scars are very much less likely to occur following irradiation.

*Abstractor's Comment.*—X-rays generated at a high voltage, 220 KVP, and using a very heavy filter of tin, copper, and aluminum, as recommended by Merritt, can be used with excellent results without producing the severe reactions that are encountered when the low-voltage technique recommended by the author is used. Daily doses of 200 r to 300 r are given until 4,000 to 4,500 r are administered.

### SURGERY—GENERAL AND ABDOMINAL

By BATTLE MALONE, II, M.D.  
1400 Monroe Avenue, Memphis

Acute and Chronic Pancreatitis. Clinic of Dr. Gatewood, Presbyterian Hospital, Chicago, Illinois. Surgical Clinics of North America, April, 1937.

The acute form may be produced by things other than bacteria, such as traumatic injury, but this form is comparatively rare. A thin slab of pancreas may be removed in doing a gastric resection without untoward results. The question of autodigestion is a difficult problem, concerning which there are two conflicting opinions. One group of observers believes that the destruction of the pancreas is caused by the activation of the pancreatic enzymes, particularly trypsin. Opie, in 1901, showed that retroinjection of bile could produce pancreatitis. It appears that abnormal bile, rich in bile salts and bacteria, can convert trypsinogen into active trypsin. Another group believes that there is a pancreatic apoplexy which produces a necrosis; then the trypsin acts in a secondary role.

The exact etiology of acute pancreatitis is unknown. The average age is 43.3 years, and men are affected more often than women. Gallstones are found in about two-thirds of the cases.

*Pathology.*—The pancreas is soft, swollen, dark red or purplish. Gross hemorrhage may or may not be present, but brownish fluid is found in the

peritoneal cavity. Abscesses may form and become secondarily infected or remain sterile. Areas of fat necrosis are found.

The symptoms are very typical. Severe epigastric pain coming on a few hours after a large meal, with nausea and vomiting, suggests acute pancreatitis as well as acute cholelithiasis or a perforated peptic ulcer. Collapse is usually marked. Abdominal distension is rapid. Glycosuria may be present. The Wohlgemuth test is very helpful.

The prognosis varies with the acuteness of the disease and the complications which develop. The treatment is almost invariably surgical. It consists in: (1) draining the bile ducts usually by cholecystostomy and (2) placing drainage tubes or gauze packs down to the pancreas in the lesser peritoneal cavity. The mortality is usually about fifty-one per cent.

*Chronic Pancreatitis.*—This is frequently associated with chronic disease of the gall bladder and bile tracts. The gland is enlarged, hard, and somewhat lobulated. Calculi are usually found in the bile tracts and occasionally in the pancreatic ducts. There are two varieties, the interlobular and the interacinar. Microscopically interlobular fibrosis is seen with replacement of the acini by fat, the islands of Langerhans being rarely affected. In the interacinar form, changes are seen throughout the gland and diabetes develops.

The symptoms are similar to chronic cholecystitis. Fatty stools are rarely seen. Silent jaundice usually occurs. Loss of appetite, loss of weight, and vague distress are usually present. Physical examination may reveal an enlarged smooth gall bladder unless there has been previous gall bladder disease. There also may be epigastric tenderness.

Diagnosis of chronic pancreatitis is rarely made preoperatively in the absence of jaundice. When silent jaundice is present, one must consider also catarrhal jaundice, hepatic cirrhosis, subacute yellow atrophy, cholelithiasis, and carcinoma of the pancreas.

There are several procedures which may be carried out in the treatment, all of which are surgical. Cholecystectomy with drainage of the common duct may be done if the gall bladder is badly diseased, thereby removing a focus of infection. An objection to this is that one may later wish to do a cholecystostomy or cholecystogastrostomy. If there are gallstones, removal of these with cholecystostomy may be done. A third method of drainage is by cholecystoduodenostomy or cholecystogastrostomy.

## SYPHILOLOGY

By E. G. CLARK, M.D.

Tennessee Department of Public Health  
Nashville

**Late Prenatal Syphilis with Special Reference to Interstitial Keratitis, Its Prevention and Treatment.** Cole, Uselton, Moore, O'Leary, Stokes, Wile, Parran, Vonderlehr. *Venereal Disease Information*, April, 1937, and *Archives of Dermatology and Syphilology*, 35: 563, April, 1937.

This is a study of 1,010 cases of late prenatal syphilis in patients observed and treated over a period of at least two years. Cases are divided into three groups:

1. Active: Acute—less than six months' duration (two months in interstitial keratitis).  
Chronic—longer than six months.
2. Inactive—with scars as scarred cornea, saddle nose, hemiplegia (with negative serology).
3. Latent—only serological evidence.

The white patients had a much stormier course than the colored. Only two per cent had had previous treatment, and only nineteen per cent gave any history of infantile lesions. Evidently there was a high percentage of those asymptomatic early who developed lesions later in life. Thirty-nine per cent of the total were latent on admission and 32.6 per cent had interstitial keratitis on admission. Of those, then, who had some manifestation of syphilis active or inactive, fifty-three per cent had interstitial keratitis, fifteen per cent had some form of central nervous system involvement, and about five per cent had eighth nerve deafness.

Good results of treatment decreased as treatment was delayed until after manifestations had become either chronic or had spontaneously healed, leaving scars. Of 397 cases with latent, 96.5 per cent showed no progress when treated. The blood serologic reaction remained positive in 53.9 per cent. Prognosis for satisfactory outcome and against clinical relapse was better in active cases (and those inactive with scars) with non-fast serological tests than in the serological fast group. However, in patients with latent prenatal syphilis, blood serologic fastness did not seem to influence progression or relapse.

Interstitial keratitis occurred between the ages of three and twenty years with the preponderance of cases between the ages of six and fifteen years. Ninety per cent of the cases were untreated before the first attack. Even inadequate treatment reduces the risk of developing interstitial keratitis, however, it is three to four times as frequently seen as in those adequately treated.

The success of antisyphilitic treatment in prevention of involvement of the second eye is largely dependent upon the duration of the lesion in the first eye when treatment is sought. The second eye is usually involved within two years, but very rarely after adequate treatment has been given. There was no residual blindness in those treated early, however, ten per cent did show no improvement in vision in spite of adequate treatment.

Neoarsphenamine seems as satisfactory as old salvarsan. Fever therapy is of value in chronic cases. The outcome of early cases is less satisfactory when iodides are used than when not used, however chronic cases seem to do better under iodides. Continuous therapy is the treatment of choice in early cases. Planned rest periods may be used in late cases without harm.

## UROLOGY

By TOM R. BARRY, M.D., F.A.C.S.

By G. A. WILLIAMSON, JR., M.D.

Medical Building, Knoxville

**Rupture of Bladder and Urethra.** *Am. Jour. Surgery*. George F. Cahill. June, 1937.

Rupture of the bladder is an infrequent injury, although the incidence is increasing as evidenced by recent literature. Bladder rupture is due to sudden increased hydrostatic pressure and puncture or perforation due to the passage of some foreign object or adjacent bone. Rupture of the bladder occurs only when the bladder contains fluid.

The symptoms are first those of shock, which may be slight or severe, and with this, hemorrhage frequently occurs. Local pain and tenderness in the lower abdomen are usually present, but in alcoholic or psychopathic cases, little complaint may be given concerning their local reactions. There is frequently a marked desire to void, with inability to produce urine.

In diagnosis, abdominal distention is present in over sixty per cent of cases, and free fluid in the abdomen is demonstrable in thirty per cent. The most common procedures for diagnosis are catheterization, cystoscopy, and injection of air or sodium iodide, which on roentgenograms show escape of the medium from the bladder. These procedures, however, should immediately precede operation, for they increase the incidence of and add to the spread of infection. Intravenous pyelograms and cystograms have been of the most value in diagnosis.

Once the diagnosis is established, immediate operation is essential. If shock is present, it may



best be improved by transfusion, associated with heat and stimulants. If low blood pressure is present, it will contraindicate spinal anesthesia.

When intraperitoneal exploration is necessary, as in most cases, the fluid is aspirated, the vesical tear located, and (revealing no other visceral injuries) it is closed, paying especial attention to peritonealizing the closure. If the case is early, the wound is closed with ample suprapubic drainage of the bladder provided.

Associated injuries to other abdominal viscera may occur, and should be repaired, if possible, at the time of exploration.

If the injury and extravasation are extraperitoneal, the procedure is modified according to the area involved. If extensive laceration of the bladder and pelvic tissue occurs, control of the hemorrhage and provision of wide drainage should be provided, until the vitality of the patient is restored.

The complications are mainly shock, hemorrhage, and infection. Peritonitis has been reported in over fifty per cent of the cases.

The mortality rate is definitely lower, but the descent has been gradual. Intraperitoneal ruptures have had the higher death rate, due largely to the failure to diagnose the condition sufficiently early. Extraperitoneal ruptures are considered less dangerous, if uncomplicated.

Urethral ruptures may be caused from within or without. Carelessness in instrumentation is the usual cause of injuries from within. The first symptom is pain and continuous bleeding, independent of voiding.

The usual causes of urethral rupture are blows or falls on the perineum. The urethra may be completely or partially severed. The tear may be transverse, oblique, or longitudinal. Mainly it is extrapelvic or intrapelvic. It may be completely torn from the bladder. The marked desire to void seen in bladder injuries is not usually present, but attempts to void are most painful, due to extravasation most likely.

The course of extravasation is dependent upon the site of the rupture. Attempts at urethral catheterization have been condemned as a diagnostic procedure by White, Hansen, and others as producing further hemorrhage and introducing infection.

The surgical indications are diversion of urine, prevent or drain infection or extravasation, and repair the tear. The authors report that in their series of cases suprapubic drainage accompanied by continuous aspiration has been most adequate for the urinary diversion.

The prognosis of urethral rupture is better than vesical rupture as far as life recovery is concerned. Impotence frequently occurs following this injury.

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### TREATMENT OF FRACTURES OF THE FACE\*

ROBERT PATTERSON, M.D., Knoxville

**F**RACTURES OF THE FACE have increased at an alarming rate in recent years. Most of them are caused by head-on collisions of the automobile in which the victim is riding with some other object. The patient is catapulted forward, and the face usually strikes some object in the region of the nose, or if the head is involuntarily turned slightly to the side to avoid the blow, the center of the impact is received on the malar bone.

Straith<sup>1</sup> classifies injuries resulting from motor accidents as "(1) injuries to the driver (steering post injuries); (2) guest passenger injuries." The "driver injuries because of the relative protection accorded the driver by the steering wheel to which he may cling for support are the least frequent variety." "Guest passenger" injuries to persons riding in the front seat beside the driver are more frequent. He states they constitute seventy-five per cent of severe crushing injuries sustained in accidents. The majority of the victims are young women. The head strikes the instrument panel with resulting crushing of the midportion of the face. Fractures with deformity are the result.

"Fractures of the malar bone are frequently associated with those of the nasal bones and the superior maxillary. The body of the malar bone is usually not fractured but rather the process by which it is

connected with the adjoining bones. These consist of the frontosphenoidal process at the outer wall of the orbit, the orbital-maxillary process (the attachment of the superior maxillary and the lower margin of the orbit), and the zygomatic process (the attachment to the zygomatic process of the temporal bone)."

It is not my intention in this paper to try to deal with all the fractures of the face but to confine my discussion largely to the malar-superior maxillary-zygomatic compound. I shall mention the treatment of the nasal bones only incidentally and shall leave out of the discussion entirely fractures of the mandible and those of the upper orbital and frontal regions.

The great importance of early diagnosis and prompt treatment in these cases is apparent owing to the rapid union of the bones involved. The difficulties of reduction increase very rapidly as the days pass. Often the swelling is so great that such fractures may be overlooked even for weeks. The resulting deformities may be such as to permanently mar the appearance of the face. This in the case of female patients is most deplorable.

The points in the anatomy of this region of the face that have a bearing on the method of treatment are the following: The underside of both the zygomatic and the malar bones for much of their extent are freely accessible. The soft parts filling in these spaces are free from large blood ves-

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.

sels. Hence you can introduce small instruments for manipulation without fear of severe hemorrhage.

The base of the malar bone is hollow and forms a portion of the antrum. As a result, the strong base is often telescoped into the antrum and therefore may be pulled out into position by the manipulations which elevate the malar and the zygoma.

Often in maxillary fractures the anterior wall of the antrum is crushed in. This may require entering the antrum for elevation above or this may have to be combined with external manipulation. My constant endeavor in treating these cases has been to avoid open operations on the face on account of danger of infection and of scar formation.

In the past two years I have treated eight of the fractures under discussion. Dr. Jarrell Penn of this city has used our method in four more cases. We have been successful in reducing the fractures and overcoming the deformity entirely in eleven cases. One of my cases (Case 1) still has some flattening of the nose owing to destruction of the nasal bones. This will require a plastic operation later for correction.

Among the methods used for treating depressed fractures of the malar and zygoma according to Straith "(1) Arc<sup>1</sup> grasping and elevating the bone by means of a large towel clip (Gill<sup>1</sup>); (2) opening the canine fossa and elevating the malar bone through the antrum—if necessary to maintain elevation the antrum may be packed; (3) elevating the malar bone by means of a trocar inserted into the antrum through the nose (Shea<sup>2</sup>); (4) Straith's method, "passing an antrum trocar or a heavy curved instrument through the mucous membrane behind the last upper molar up and beneath the malar bone behind the maxilla. Upward pressure against the depressed portion usually suffices to elevate it satisfactorily."

I published in the *Journal of Bone and Joint Surgery* in 1935<sup>3</sup> certain methods of reduction of fractures of the malar and the zygoma. In this paper I wish to review these methods and to report cases of superior maxillary fractures, and the pro-

cedures used successfully in the different types of fractures. The cases reported will each have some feature differing from the others, requiring slightly different procedures. The description of the cases will best bring out the methods used and the technique of reductions. Cases 1, 2, and 4 will be quoted verbatim from the above-mentioned article of mine entitled "Treatment of Fractures of the Zygomatic (Malar) Bone and the Zygomatic Arch" and will appear as the first three cases reported in this paper.

"Depressed fractures of the zygomatic arch often present difficult problems if reduced successfully without scar formation. Fleishy individuals are especially hard to treat successfully, owing to the depth of the bone and the difficulty of grasping it with an instrument such as the towel clip used by some, because there is so much soft tissue in the bite that it will not reach the bone. One must grope blindly, and usually unsuccessfully, when using instruments ordinarily suggested. If treated by open operation, an unsightly scar results, which is henceforth a source of mortification to the patient.

"The difficulty of treating these cases is enhanced by the fact that great force is often necessary to pull the bone outward. Since the pull is against the apex of a triangle, much of the force is dissipated by being transmitted along the longitudinal axis of the fragments instead of transversely, as desired, to effect the reduction."

#### CASE 1

"A. B. L., a male, age thirty, while acting as referee in a wrestling match on December 5, 1934, was struck over the left zygomatic arch with the naked fist of an angry wrestler. The point of the blow landed squarely in the middle of the right arch, driving it inward almost to the skull and producing a greenstick fracture with the fragments lying at an angle of about thirty degrees. A marked depression in the face resulted. The patient experienced difficulty in moving the mandible, especially forward.

"It was evident that the soft tissues were being pressed against the coronoid process



of the mandible. Being a man of fine appearance, the patient naturally recoiled from an open operation. The fact that his face was full added to the difficulty of closed reduction.

"The bone was restored to normal position in the following manner: A Straude-Moore straight tenaculum, five and three-quarters inches in length, with a Collins slip lock, was used. This instrument has a large curve or grasping space. The halves were disengaged, and one point was inserted straight through the skin and soft tissues just above where the zygomatic arch normally lies. In selecting the point of introduction, an allowance was made for the great depth to be traversed to reach the bone. The tenaculum was pushed inward and downward in the line of its curve until it struck the zygomatic process. It was engaged behind the bone and the handle elevated. The other half of the instrument was then introduced in a similar manner below the bone, the point passing inward and upward until it also caught behind the bone. With considerable difficulty, the handles were eventually brought into position and locked. This provided a powerful grip on the process at the site of the fracture. The instrument could not slip, being held in place by the soft tissues."

After the author had guardedly exerted his entire strength, a snap occurred and the bone sprang back into normal position. The depression disappeared from the face. Immediately upon awakening, the patient expressed complete relief from the binding sensation in moving the mandible.

#### CASE 2

"S. H., a male, age twenty, was struck on the left malar bone while playing football in the fall of 1933. The blow depressed the entire bone, including the outer floor and rim of the orbit. It carried inward also the anterior portion of the zygomatic process of the frontal bone. In this case, one tooth of the Straude-Moore tenaculum was caught over the anterior border of the orbit while the other tooth pierced the muscles of the face beneath the malar bone. Strong outward traction was made. An ice pick was thrust beneath the outer end of the

malar bone to assist in the elevation. By this means, the structures were raised to such an extent that the deformity was largely overcome."

#### CASE 3

"R. L. N., a male, age twenty-one, struck his right cheek against the side of a pool while diving on June 22, 1935. A depressed fracture of the right malar bone resulted. It was severed from the zygomatic arch at its junction with the arch. The latter was not depressed.

"Under ether anesthesia, a Straude-Moore tenaculum was introduced around the outer end of the zygomatic process of the malar bone. Traction was fruitless and only straightened out the hooks of the tenaculum. The veterinarian tenaculum was then inserted from below (beneath the malar bone) at its junction with the process. By using great force and by rocking the instrument to break up impaction, the author was finally able to elevate the bone to practically normal position. The two sides of the face now appear symmetrical."

#### CASE 4

"J. L. S., age about thirty-five. Face injured in automobile wreck December 24, 1936. Nothing was done for the fracture. Examination January 1, 1937, showed a depressed fracture of the left zygoma of the outer orbital plate, the inferior orbital plate with inward and backward displacement of the malar, and the infraorbital margin of the superior maxillary. Operation January 1, 1937. One-half of a Straude-Moore clamp was inserted deep above the upper malar zygomatic margin, the other half beneath the malar, and the halves were clamped together. The handle of the clamp was used for a lever by lifting outward and forward much as one would lift a shovel removing dirt, and the impacted bones were pulled out to their normal position. No dressing was used for retention."

#### CASE 5

Miss L. V., age twenty. The automobile in which she was riding collided head-on with a truck on March 13, 1936. She was hurled forward, her face striking some



Case No. 5—Fig. 1.—Note complete restoration of contour except slight depression of nose.

sharp object. Her nose was mashed flat and all the bones were comminuted. The right malar bone, together with the outer orbital plate, was driven inward, causing depression of the lower outer orbital margin and flattening of the right side of the cheek. In addition to this, both superior maxillary bones were driven inward and impacted, producing a dish-face deformity. The anterior margin of the upper teeth lay about one-half inch behind that of the lower teeth and the front part of the teeth were elevated about one-half inch. Only the two back molars on each side approximated. There were several cuts about the face and the nasal fracture was compounded through the skin.

The nasal bones were immediately moulded into position as much as possible by pressure from within, but it was necessary to delay further work for ten days, owing to her general condition and to the great swelling present. On March 23, operation was performed as follows:

The right malar bone was restored to normal position by strong traction exerted by means of the large hook we use in malar

and zygomatic fractures, as described in a former publication.<sup>1</sup> Three Straude-Moore tenaculi, also described in the above-mentioned article, were clamped through the roof of the mouth above the upper teeth, and by rocking and traction all impaction was broken up. Interdental splints were then applied by Dr. Howard Taylor, the dental surgeon, for the purpose of traction. By use of rubber bands the teeth were brought into good occlusion in about twenty-four hours. This was maintained until union occurred.

Infection developed in the region of the right antrum about four days later, necessitating a small external incision for drainage. The contour of her face was restored to practically normal appearance. She has some absorption of the soft tissues of the right cheek from the infection. There is still a slight depression in the center of the bridge of the nose due to destruction of the bone. We hope to correct this later by a plastic operation.

#### CASE 6

A. L. C., male, age twenty. This patient was injured in an automobile wreck three and one-half weeks before consulting me on April 7, 1936. His nose and upper lip struck the steering wheel of his car as the impact came, and his superior maxillae were driven backward into his head approximately one-half inch. The distal half of his nose was flattened, the septum being buckled on itself. He received some cuts about the lips which were sewed and healed promptly. Nothing, however, was done about the fractured face.

Upon examination, I found the upper lip and nasal region depressed except from the center of the nose upward. The nose dropped sharply from the natural hump in the center to the end. This portion was flattened out. He had malocclusion, the upper teeth being over one-fourth inch behind the lower ones. The front teeth were tilted upward so that only the posterior molars came in contact. He was, therefore, powerless to masticate his food and had taken only liquid food since his injury.

An effort was made to break up the impaction by the use of the clamps, as de-





Case No. 6—Fig. 1.—Before operation. Note the recession of the upper lip and distal portion of the nose.



Case No. 6—Fig. 2.—After operation. The change in appearance is notable. Normal contour of the face is restored.

scribed in Case No. 5, but union was too firm. An incision about one inch long was made beneath the upper lip high up over the left canine region, and an osteotome was inserted and driven straight back, passing through the lower portion of the antrum above the level of the floor of the nose and traversing the left maxilla and possibly the ptergoid plate of the sphenoid. A similar osteotomy was then performed on the right side, and the upper jaw was thereby mobilized.

Dental splints were then applied by Dr. Taylor, as in Case No. 5, and traction was applied. Within forty-eight hours the teeth were in satisfactory occlusion, the deformity had disappeared from the face, and the septum was straight. Our uneasiness with regard to hemorrhage was apparently unfounded. We carefully avoided going beyond the ptergoid plate to prevent severing the internal maxillary artery. No infection occurred in this case, and he had surprisingly little discomfort from the procedure.

#### CASE 7

Mrs. C. L. C., age about thirty-five. This patient fell about March 1, 1936, and struck the left cheek against an object, producing a fracture of the superior maxillary bone, the fracture line passing through the center of the lower orbital border. The outer half of the lower border of the orbit and the malar bone were markedly depressed. The zygoma was also fractured in two places. This produced a marked change in the shape and expression of the face.

Under an anesthetic, the large tenaculum above referred to was driven into the face beneath the malar bone. We were careful to keep the point against the undersurface of the malar, and it was hooked into the angle at the base of this bone. With strong traction, the impaction was broken up and the orbital plate, as well as the malar bone, was restored to normal position, and the deformity was entirely corrected.

I got the impression from this series of cases that most of these fractures can be reduced by relatively simple procedures, if one is thoroughly familiar with the anatomy of the parts, so he can visualize what he is doing, and if the diagnosis is made early.



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## DISCUSSION

DR. R. R. BROWN (Nashville): Gentlemen, I wish to thank Dr. Patterson for bringing this very timely paper to us. With the various automobile accidents we are seeing quite a number of very disfiguring fractures of the face. Dr. Patterson's instruments that he uses in reposition of these fragments are individually his own and I hope he takes time later on to show them to all of you. I haven't such instruments and consequently have not used them. In the short time that I have I wish to confine my remarks to the fractures of the malar zygomatic compound. I recently had four of these cases, two of them in which the entire malar bone was fractured and driven in with a marked flattening of the face. With the ordinary clamps, in an effort to approach and clamp the bone from the outside, in the first one of these that I had I was unable even after grasping it with the small clamp I had to budge it. In looking up a plan to follow, I ran across the plan of Dr. Gillis, an English surgeon, in the British Journal of Surgery, and I have a slide of that which I wish to present to you. It suffices to replace fractures of the zygomatic arch and the entire malar bone. The offset at the orbit at the external border and in the infraorbital ridge and at the zygoma can be definitely felt in these cases and oftentimes the main body of the bone is wedged underneath and it takes considerable force to get it back in place. Fortunately for us there is no tremendous muscle pull and consequently if you do reduce them they have a tendency to stay reduced and it does not require a cumbersome apparatus to reduce them.

You will notice in this cut that the incision is made in the hairline to prevent a permanent scar. The incision is made down through the superficial fascia to the fascia covering the temporal muscle. A small nick is made in the fascia covering the temporal fascia and a flat instrument—I used in my case the flat crooked periosteal elevator—passes along the belly of the temporal muscle and slides directly in underneath the zygoma and the zygomatic portion of the malar bone and you can get a tremendous force in there. It is surprising how easily the bone is pushed back into its natural position.

Two of Dr. Patterson's instruments that he showed appealed to me very much in handling these cases and I should like to have some of them made.

DR. JARRELL PENN (Knoxville): Dr. Patterson stated in his paper that I have treated four of these cases, according to the method he has just described with results that are extremely satisfactory. Two of my cases resulted from automobile accidents and two from direct blows on the face from the fist.

As Dr. Patterson stated, it is essential to make the diagnosis as early as possible. The longer treatment is postponed the more difficulty is encountered in reducing them. In two cases I remember distinctly there was a great deal of difficulty in closing the jaw because the wing of the mandible came in contact with the depressed zygomatic arch, which symptom if present is of considerable aid in diagnosis. My four cases were of the zygoma or the zygomatic process.

It is very easy to get a satisfactory X-ray picture of the zygomatic process, and in injuries about the face if there is any suspicion of an injury to this area I think it is essential that an X-ray examination is made. The film is made by having the patient hang his head off the end of the table and placing the film directly under the top of the head with the X-ray tube pointing towards the chin. This gives a very satisfactory picture of both zygomatic processes and any depression can easily be detected.

Here, as in all fractures, the simplest method of treatment is the method of choice. I believe the method just described by Dr. Patterson is certainly the simplest, and it has proven entirely satisfactory in the four cases in my series.

If a cutting operation is necessary, the one shown by Dr. Brown impresses me as being the most satisfactory because it leaves less scarring, and any operation going through the antrum of course is a much more major procedure.

Dr. Patterson's idea of using the Straude-Moore forceps, which is a forceps divided into two halves, I think is very unique and it impresses me as the same principle of applying obstetrical forceps, one blade at a time so that each blade may be properly located. As he stated, the soft tissues about this portion of the face are rather deep and there is usually much swelling so it is difficult to get the ends of the clip under the bone because of the enormous bite of soft tissues that the points just penetrate before surrounding the displaced fragment. By inserting each blade separately, one above the zygoma to the skull and turning up, the other below, and fastening these forceps together, it is relatively easy to get behind or beneath the fractured bone, and of course the force necessary is away from the face because the force that produced the fracture was toward the face. After the instrument has been applied, it is surprising how much force is required to reduce the fracture. After sufficient force is applied reduction is usually accompanied by a sudden snap and the contour of the face is restored to normal. As Dr. Brown stated, there is no muscle pull so that external fixation is not necessary. After reduction has

been accomplished there are two small punctured wounds in the face from the jaws of the forceps so a little dressing should be applied until they have healed. Immediately upon waking up from the anesthetic the binding or tightness in the jaw has disappeared, and in the four cases I have had the contour of the face has returned to normal.

I enjoyed the doctor's paper very much. I have used his particular instrument in my cases. I think he is to be congratulated for presenting this method of treatment.

DR. EDWARD T. NEWELL (Chattanooga): I am sorry that the doctor has not shown his instrument because I do not quite understand it. Fractures of the zygomatic arch, malar bone, or fractures of the patella usually require open operation, and are so considered by most orthopedists and fracture surgeons.

Many years ago when we used to cut down on these fractures, we used general anesthesia. We made an incision directly over the zygoma half an inch long. Then we would take the small end of the handle of a retractor and put under the fracture zygoma and pull it up until "it popped," as has been said here; until you could palpate and see that the zygoma was in good position. You always had quite an ugly scar.

But in recent years and for many years, in our clinic we have used local anesthesia. I do not think that we have used general anesthesia in ten or fifteen years in the treatment of depressed zygomas or patella fractures. It is not necessary to make a large opening, but with good X-rays, as has been so graphically described by the doctor who has just discussed this paper, you know exactly where to go. With a gall bladder forcep or a kidney forceps, if your gall bladder forceps doesn't work, one that has a decided curve to it, you can pass down under the zygoma, locate the temporal bone, and make traction. With a finger over the depression, and with outward traction with the other hand, you can accurately replace the depressed zygoma.

In regard to the fractured nasal bones, I agree with Dr. Patterson that it is a simple procedure which can be easily done under local anesthesia, with a small rubber protected curved forceps.

But with the major fractures of the superior maxillas, he is to be commended for the boldness with which he has handled them. I have had some of those dreadful cases that Dr. Patterson has described, major cases where both superior maxillas have been driven backward. However, I have not had them as the doctor said his case was; a month old and where union has taken place.

I have no doubt that this instrument which he has described and which I hope in closing he will pass around is of great value in this particular case.

Going back to the zygoma, you only have a small scar, less than an eighth of an inch where you

use a forceps, it is minor, and even in the case of a woman, it makes very little cosmetic disturbance. I have had no complaints about the scar.

DR. ROBERT F. PATTERSON (closing): I wish to thank the discussers very much for the discussion of this paper. I think I will occupy the little time I have left by simply illustrating and showing the instrument that I used in this case.

This is the Straude-Moore clamp. It is so old-fashioned that you can't even buy one now. That is one that I bought when I first started to practice medicine and I just happened to see it in my case. Trying to figure out some way to get hold of that I happened to think of this, and I have tried in vain to get one like it and I can't find one on the market. It has a very wide clamp here as compared with the rest of them.

Of the other instruments here is one found in New Orleans by Dr. White, but that is not an ideal instrument because it is not big enough through the clamps. This is one that I had made in New York that is better. I went to the White Surgical Supply Company here and asked them to make me an instrument and I described it, and Dr. White, who used to be the State Veterinarian, said, "I have a horse tenaculum that is just what you want." That is a veterinary tenaculum. It is very strong and you can get a powerful grip. That is the ideal instrument.

This is a prepared skull for an otolaryngologist, but it is good to illustrate this. I want to show you the great accessibility of this fracture to approach from any direction. The fracture occurs at this part, at this part and that, and what happens is that the whole thing is driven back into the head and any force that restores that fracture must not only lift outward but must pull that out of the head. That is where these instruments seem to come in pretty well.

Also, I wish to call your attention to the fact that this is freely accessible to a simple clamp such as this one. You can pull out by clamping one prong over the anterior border of the orbit with the other prong beneath the malar where the infraorbital region is depressed. By using this tenaculum (the large hook) you can approach it from this border, and by hooking it up close under there you can do no harm whatsoever.

Here is the antrum and you can do the same thing by going through the antrum from below if you care to.

In breaking up these impactions I simply clamp these instruments right through there and put three or four of them in and break the whole thing loose, and then turn it over to the dentist. I do not have anything more to do with them after I have broken them loose, because that is a dental problem.

I think the nasal fracture is a dental problem. I do not try to do those, and I do not do inferior maxillaries.



## FRACTURES: A FEW BASIC PRINCIPLES OF TREATMENT\*

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THE TREATMENT of fractures has probably received more thoughtful attention within the past decade than any other single surgical problem. Possibly this is due to the increasing number of fractures, occurring largely as the result of the use and abuse of motor-driven vehicles and accidents occurring within the home. In the fifteen-year period, 1920-1935, motor deaths totaled 388,936, or fifty-nine per cent more than the total American battle deaths and deaths resulting from battle wounds in the approximate fifteen years of our six major wars. Last year there were 1,269,360 motor accidents resulting in 36,800 dead and 967,840 disabled. In the same period home accidents caused 39,000 deaths and 5,500,000 disabilities. Many of the accidents occurred in remote rural areas, yet were of a nature requiring modern hospital methods. Many of the fractures were compound, complicated by severe shock, hemorrhage, or internal injury. These facts force each of us, with or against his will, to become in part a fracture surgeon.

New methods of fracture treatment are constantly appearing in the literature. Many of these methods are so complex or hazardous that their use can never become general. It is not the purpose of this paper to criticize or suggest any new or particular treatment, or any specific fracture, but to outline a few basic principles upon which all can agree, and whose clinical merits have stood the test of time. These principles are applicable in widely varying ways to practically all fractures of the spine and extremities. Fractures of the cranium and face present entirely different problems and are not here considered.

## PURPOSE

The purpose of all fracture treatment is to restore maximum function to the injured part, and the individual to his occupation

in the minimum time. Under ideal conditions, this treatment begins immediately following the accident, and is continuous until discharge of the patient. In common with other ideals, this one is rarely attained.

All fracture treatment may be divided into two phases; first aid and transportation and definitive treatment. Treatment of associated injuries may run concurrently throughout both phases. During all treatment, the patient as an individual must receive first consideration, and the injured part be considered from the viewpoint of the final functional result.

## FIRST AID AND TRANSPORTATION

The purpose of first aid is to save life and limb, to prevent additional injury—either by the patient or through the ill-advised efforts of well-meaning onlookers—and to place the patient and the injured part in condition and in the place for the definitive treatment to follow. Initial treatment ordinarily consists of combating shock, checking hemorrhage, and splinting the fracture. Shock is best combated by recumbency, heat—both external and internal, and narcotics as indicated. Hemorrhage may be checked by dressings, digital pressure, or tourniquet. When the latter is used, it should be released at the end of forty-five minutes or one hour, and thereafter at half-hour intervals if gangrene is to be avoided. If the fracture is compound, it should receive the indicated treatment for hemorrhage, be flushed with an antiseptic, and covered with a sterile dressing. Do not attempt to reduce, do not probe, and do not attempt to remove foreign material until proper facilities are available. A splint appropriate to the fracture should always be applied before moving the patient from the scene of accident. A properly applied splint decreases shock, prevents damage to adjacent soft parts, simplifies reduction, and in compound fractures reduces the dangers of infection. Transportation with-

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.



out a splint may result in far more damage than the original injury. A splint is rarely available at the scene of accident but can be devised from boards, metal strips, meshed wire, leather, or other material. Splints should be well padded, and should always include at least one joint proximal and one joint distal to the fracture.

Transportation requirements are governed by the condition of the patient and the location and severity of the fracture. Patients in slight shock, with fractures of the upper extremity, and minor fractures of the lower extremity may be safely transported in the sitting position; while all moderately shocked, all cases of fracture of the spine or pelvis, and all major fractures of the lower extremity should be transported in recumbency. Severely shocked fracture cases should not be transported until marked recovery from shock has occurred unless some contraindication to delay is present. During transportation, steps should be taken to prevent unnecessary jarring of the patient and the injured part, the treatment of shock should be continued, and hemorrhage avoided. Excessive ambulance speed in transportation fracture cases is positively harmful.

It should here be stated that for the past several years the Central Fracture Committee of the American College of Surgeons, working through its regional committees, has attempted to have all ambulances equipped with Thomas splints for upper and lower extremities, and personnel trained in their use. Our lack of success is apparent. The cooperation of each of you in attaining this goal is requested. Such a system proved invaluable during the World War and today is standard in the military services throughout the civilized world. Surely, our ambulance service should be as efficient and as well-equipped in time of peace as in war.

#### DEFINITIVE TREATMENT

Definitive treatment begins when the patient reaches the place where proper facilities are available. In the case of severe fractures this is ordinarily a hospital. The ideal of this phase of treatment is to restore the injured part to functional normalcy

within the minimum time. The presence of shock, hemorrhage, or associated injury may prevent local treatment of the fracture for the time being, but as soon as the general condition permits, a careful, complete physical examination is made, especially with reference to nerve or circulatory disturbance in the extremity, the presence or absence of associated internal injury, and additional fractures. Particularly should the spine and pelvis be examined for fracture, as fractures in these regions are often relatively symptomless.

All obvious and suspected fractures should be X-rayed in two planes, for well-known medicolegal as well as clinical reasons. Careful personal study of these plates should always be made by the surgeon before reduction is attempted. Urinalysis should be routine. Additional tests—such as the Queckenstedt in cases showing evidence of spinal cord injury—should be made as indicated. The age, sex, occupation, social and economic position, physical and laboratory findings of the patient; the experience of the surgeon; and available facilities for treatment all play important and obvious parts in the selection of the most desirable method of treatment. There is no “one and only” treatment for any fracture, but like the proverbial tub each case must stand on its own bottom and be treated in accordance with its individual requirements, in the manner calculated to produce the best functional result in that particular patient suffering with that specific fracture.

#### *A—Reduction*

In certain fractures requiring no reduction—chiefly linear fractures with slight or no displacement, and impacted fractures in good position—the immediate concern is the type of immobilization to employ. Unfortunately, these constitute a very minor portion of a fracture service, and in the vast majority of cases reduction is necessary.

Reduction should be accomplished as soon after the accident as the patient's condition permits. Each hour of delay increases soft-tissue congestion and muscle shortening, so increasing the difficulties of replacement. Reduction may be accomplished by manipulative methods, by trac-

tion, or by open operation. Manipulation is of greatest value in cases where reduction is easily accomplished and maintained. This method is commonly employed in Colles', Pott's, and supracondylar fractures, in fractures involving the femoral neck, and in many cases of transverse and incomplete fracture.

Traction may be applied to the skin by some type of adhesive or directly to the bone by means of metal pins or wire. The latter, known as skeletal traction, is the most effective and is ordinarily employed when unusual difficulty of reduction is expected, when the traction must be continued over long periods of time, or where the fracture site is near a joint. Traction of one type or another is usually used in oblique and comminuted fractures, and may not only be used to obtain reduction, but also as a method of immobilization until danger of displacement ceases. Hyperextension, which has revolutionized the treatment of fracture and dislocation of the spine, is but a specialized type of traction, whereby the body weight is utilized as a correcting force at both ends of the anterior spinal ligament.

Open operative methods are employed when satisfactory reduction and fixation cannot be obtained by closed methods. This is usually the treatment of choice in transverse fractures of the patella and olecranon when separation is present, in fractures of the internal humeral epicondyle, and in certain fractures involving joints. Because of interference with circulation at the site of fracture, delayed union is common following open reduction, and when employed, every effort should be made to disturb the local blood supply as slightly as possible. At present the use of metal for internal fixation is regarded unfavorably. Recent reports and studies now in progress regarding the chemistry of metals and the reaction of bone to metal are most promising. It appears probable that a solution to this troublesome problem is not far distant.

Fractures adjacent to or involving a joint must be accurately reduced, particularly in children. Shaft fractures are generally considered satisfactorily reduced if length

and alignment have been secured and maintained with fifty per cent engagement in two right-angled planes. Reduction is for function, not for perfect X-rays. Perfect restoration of the bone in shaft fractures may severely traumatize adjacent soft parts and actually inhibit callus formation without the slightest functional gain.

### *B—Fixation*

External fixation must practically always be employed following reduction. This may take the form of casts or molded splints, or may be a continuation of the traction devices previously mentioned. Whatever the method chosen, it should securely immobilize the site of fracture, and with few exceptions, the joint proximal and the joint distal to the fracture. After fixation is applied, it should remain undisturbed until union is well advanced. Frequent manipulation by the surgeon to determine callus formation constitutes a most effective method of securing delayed and nonunion.

### *C—Anesthesia*

It is obvious that the anesthetic can best be selected after the method of reduction and fixation is chosen. Local infiltration anesthesia is chosen where applicable, and has proven most satisfactory in the more superficial fractures, especially in Colles' and Pott's and in fractures of the tibial shaft. It is considered the anesthetic of choice in elderly, debilitated patients, and has proven of the greatest value in fractures of the neck of the femur. Its use requires rigid asepsis, considerable knowledge of anatomy, and gentleness in reduction. General anesthesia is used where local anesthesia is not employed. I have discarded spinal anesthesia after several years of use. Anesthesia of some type should be employed in practically every reduction, the only exceptions being certain simple fractures seen immediately after injury in which neither swelling, muscle shortening, nor pain on manipulation has yet developed.

### *D—Roentgenograms*

Post-reduction X-rays are routine and are repeated four or five days later if displacement is considered possible. Large

doses of X-radiation definitely inhibit callus formation, and for this reason additional plates are made only to verify clinical impressions, or to check for possible complications.

#### *E—Physiotherapy*

Physiotherapy, in the form of diathermy, light rays of one type or another, and vigorous massage, is greatly overrated, and when employed at the expense of fixation of the fracture, is to be condemned. Active muscle contraction, active joint motion, and the stimulus of functional use of the part after callus is well formed constitute the most effective forms of physiotherapy.

#### *F—Diet*

Special diets are likewise of questionable value. A balanced diet rich in milk, eggs, butter, fruits, and vegetables apparently furnishes calcium, phosphorus, and vitamins in forms more readily utilized by the body than do all of the widely advertised alphabetical and mineral concentrates.

#### *G—Delayed and Nonunion*

Delayed union is present when union does not occur within the usual time required for the type of fracture at hand. The processes of repair are present, but their progress is slowed. Nonunion is a total cessation of the reparative processes without bony union. Differentiation between these two conditions is one of physiology rather than time, as nonunion may be present after six months, and delayed union continue after one year. It appears that delayed union often results from systemic causes, but nonunion usually results from local causes — most frequently interposed soft tissue or circulatory disturbance. Syphilis plays a minor role in nonunion, and for all practical purposes need not be considered.

#### *H—Bracing*

Braces are frequently employed after release from the primary fixation, particularly in fractures of the weight-bearing bones, and are routinely employed during convalescence in compression fractures of the spine. Their function is to decrease the period of recumbency, and to permit earlier functional use of the part while protection of

the fracture is continued. They must be thoughtfully constructed to the needs of the individual case and carefully fitted. They are gradually discarded as their need passes. Physiotherapy in the form of heat and massage is usually of greatest value during the brace period.

#### *I—Compound Fractures*

All compound fractures are considered to be potentially infected. All should receive initially 1,500 units of tetanus antitoxin. This should be repeated in one week if the wound shows infection, and again preceding any surgical procedure within the fracture area. In areas where gas infections are found the use of this serum should be routine. Local treatment attempts either to sterilize the area by mechanical or chemical means with primary closure or to minimize the effects of infection then present or anticipated by some type of drainage. The method to be employed depends primarily upon the nature and age of the injury and the judgment of the surgeon.

Gunshot fractures, due to the high velocity of the ball, rarely become infected. The ball is not removed unless it is very superficial or intrudes upon a joint cavity or important adjacent structure.

The modern trend in fracture surgery is towards earlier mobilization of the patient. This, when successful, not only prevents the local atrophy and general debility of prolonged recumbency, but also reduces the cost of hospitalization.

The most effective method of attaining this goal is yet to be found, but the search is determined, widespread, and apparently often overly enthusiastic.

#### SUMMARY

1. The large number of fractures occurring each year as the result of motor and home accidents brings "the fracture problem" to the doorstep of every practicing physician and surgeon.

2. The objective of all fracture treatment is to restore maximum function in minimum time.

3. The observance of basic principles of treatment evolved from a consideration of the anatomy, physiology, and pathology of



bones, joints, and their associated structures is considered essential.

4. The most successful method of applying these principles to the case at hand constitutes the major problem of the fracture surgeon.

#### DISCUSSION

DR. DUNCAN EVE (Nashville): Mr. President and Gentlemen: I certainly enjoyed Dr. Robertson's paper. It is a subject in which I am very much interested. I should like to say there has been a very marked improvement in the last few years in regard to first aid and transportation of splints. This is due, you might say, to the Red Cross, the Boy Scouts, the railroads, industrial plants, College of Surgeons, and also many of our large cities. The Red Cross and the railroads in 1935 adopted certain types of splints for the upper extremity and lower extremity; namely, the Thomas-Murray splint for the upper extremity and the Kelly-Blake splint for the lower extremity. Naturally, their chief object is traction.

The Red Cross began a very active campaign in 1935 in regard to first aid, and so far, at present, in the West they are to have 15,000 first aid stations on main highways. All these stations contain the splints that I have described, and also a very elaborate first aid kit. The railroads and the different industrial plants have been stimulated very much recently in regard to these. At safety meetings they demonstrate methods of applying splints and first aid and also moving pictures to demonstrate the application of splints and the first aid. In some of our cities, for instance in Chicago, since 1935, if you are an employee of an ambulance you have to go through a rigid examination in first aid and applying splints before being employed in the ambulance service, which is approved by the Board of Health.

There are two outstanding principles of treatment of fractures. First is that of the long fragment which can be controlled and should be dressed in line with that of the short fragment, which cannot be controlled. For instance, a fracture of the surgical neck of the humerus, a fracture of the upper third of the femur, a fracture of the humerus, a fracture of the base of the first metacarpal bones and especially fracture of both bones of the forearm. In the last, the upper fragment is fully flexed by the biceps. In our treatment we place the elbow practically ninety degrees flexed. Therefore, we relax the biceps. Also, the upper fragment of the radius is fully supinated and in our treatment we place the distal part of the forearm and hand in the full supine position, which places it in line with the short fragment. With these fractures that I have described, of course traction and countertraction should be used so as to overcome the longitudinal displacement.

Another principle is to recognize the mechanism of the fracture; especially when the fracture is

corrected. The force that produced the fracture should be reversed and should be dressed in reverse position; for instance, the supracondylar fracture of the elbow. I will dare say that ninety-five per cent of such fractures are produced by extension. We reverse it. The same is true of Colles' fractures, Pott's fractures, and fractures of the lower spine; especially the lower dorsal and upper lumbar.

One little word about another fracture which has been brought out in this paper, and that is the Colles' fracture. In Colles' fractures that are comminuted, especially in the old people (I am not talking about young people), the treatment is absolutely different. Many have delayed union, which is due to destruction of the bone cells at the end of each fragment, with the result of loss of bone substance. My idea would be to reduce the fracture, check up with an X-ray, and apply a splint in the usual way, and then let them ride. (I think the best ones are the plaster paris splints.) How long? Five, six or seven weeks. Don't touch them. In the outcome I think we get much better results. Let them use the arm, hand, and fingers as much as possible. In old people the chief cause, as a rule, is a fall upon the outstretched hand. Therefore, they are apt to have an injury to the supraspinatus tendon in the shoulder, and if so they are apt to have a bursitis. Therefore, insist upon early motion of the arm; namely, take it out of the sling, abduct it, place it over the head several times a day. In the outcome, I believe we get the best results with these old people who have comminuted fractures as described above.

I still think there are too many bad results in fractures, especially in elbow fractures, and I still believe it is due to a fair per cent of physicians who still attempt to meet the demands of the X-ray. In the outcome there is repeated manipulation which often fails, and naturally one may have more deformity, especially of the soft parts and the periosteum. Therefore, I think it is much better to treat in some cases the individual and not the X-ray plate.

DR. GEORGE CARPENTER (Nashville): I think Dr. Robertson has given a very fine paper, certainly one in which we are all very interested, because it brought out first aid and the importance of transportation. Personally I have seen cases that have been rushed to the hospital—speeding ambulance, speedy patrol, an accident on the way to the hospital, and the ambulance driver or attendant and the passenger would be worse hurt than from the first accident. I saw that happen a while back.

One statement that Dr. Robertson made is the reason for my discussing this very complete paper. He made the statement that, in a case of compound fracture, tetanus antitoxin, 1,500 units, should be given, and repeat if necessary. He said in certain areas they should have gas antitoxin. I presume that he means certain areas are more inclined to

have gas bacillus infection, gas gangrene, than other areas. I think that is true. On the other hand, I presume, of course, that gas infections are not very prevalent around Chattanooga. I think that is due to the fact that they are probably fortunate and sooner or later they probably will be prevalent around Chattanooga. They have been very prevalent around Nashville. The gas bacillus organism is an organism that is very prevalent. I think in our treatment of compound fractures and gunshot wounds we should give an initial dose of gas antitoxin along with the tetanus antitoxin. I believe that should be given in two or three hours. In severe cases, those that have had much muscle damage or much circulatory damage, they should have a second dose within forty-eight hours, and in an occasional case even a third dose.

I wish to thank Dr. Robertson for his excellent paper.

DR. ROBERT F. PATTERSON (Knoxville): I do not wish to appear too much on the program, but I cannot forego the opportunity of commending this paper.

At the meeting of the Fracture Committee of the American College of Surgeons yesterday we devoted our entire time to discussing just what the doctor said, and we made up our minds that the thing we should do this next year is to make ambulance drivers conscious of the fact that they can do more harm than the original accident.

I recently had an experience that opened my eyes. I had a patient literally jerked right out from under me by well-meaning policemen and one of several ambulance drivers, who were trying to get there first, while I was sending somebody just a short distance for a splint. That is a thing that should be stopped. Any person with a fracture from an automobile accident is a potential spine fracture case, and if nothing else is taught these people but just to turn a patient over on his face and carry him thus instead of putting him on his back to carry him, additional injury may be avoided.

We hope next year you gentlemen will cooperate with the Fracture Committee. I just happen to be one and am not speaking officially, but we would like your cooperation in teaching ambulance drivers

and popularizing the idea that people should be handled right. Policemen and ambulance drivers and Red Cross people and everyone who has to do with the patient at the beginning should know how to do that; they should know simple methods of splinting and not depend on stock splints.

DR. R. C. ROBERTSON (closing): I thank the gentlemen for their liberal discussions. Dr. Carpenter told me last night that he had recently passed through an epidemic of gas gangrene in Nashville. I am sure it is very fresh in his memory. It is impossible to predetermine the case in which this disease will occur, and I agree with him that prophylactic doses of gas antitoxin are routinely advisable. I feel, however, that proper treatment of the wounds is of greater prophylactic value than the antitoxin.

At the present the basic principles of fracture treatment are being taught to rather a large group of people: Boy Scouts, Girl Scouts, Red Cross, ambulance drivers, and various other lay organizations. This is splendid, but I think it is somewhat problematic if such instruction other than the simplest fundamentals—as avoiding transportation of patients in shock, or without splints—can be wisely carried forward by such groups.

This paper was prepared with the hope that it might be of value in bringing about relative harmony regarding basic principles within our own ranks. This is necessary before we can reasonably expect efficient aid from eager and cooperative lay groups. I fear that we as a profession are at present inclined to minimize in our teaching the grave dangers and responsibilities encountered in first aid, splinting, and transportation, and are leaving with our pupils a strong but very erroneous impression that the fracture problem is one of simple mechanics. The correction of abuses cited from the floor and privately can be accomplished by active cooperation between ourselves and with existing interested agencies, particularly the safety councils. As citizens with special qualifications, we must direct and coordinate the efforts of the splendid groups who are so willing to assist in solving a portion of our fracture problem. Unless we maintain this leadership I fear that the tail will soon wag the dog.

## OBSTETRIC JURISPRUDENCE\*

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**M**EDICAL jurisprudence—state, forensic, or legal medicine—is application of medical knowledge to problems of a legal nature. Some of our least competent physicians devote a lot of time to medicolegal practice, while the majority of the best physicians try to avoid medicolegal practice. In appearing as a witness without adequate knowledge of the case, a doctor may subject himself to censure and embarrassment. Doctors may be called on to be one of two types of medical witnesses: (1) the ordinary witness; (2) the expert witness. The ordinary witness submits testimony of the facts in the case, and he has to have full knowledge of the case. An expert witness submits testimony of a scientific nature bearing on the case or on cases from the aspect of comparison. An ordinary medical witness receives the ordinary fee allowed by law and he cannot be compelled to testify, in a professional capacity, as an ordinary witness. But as an expert witness, in a professional capacity, he can demand the expert's fee or refuse to testify, and this is not exposing him to contempt of court. However, he cannot refuse to testify in cases that are of a criminal nature.

### RAPE

Rape is defined legally as a carnal knowledge of a woman by force and without the consent of the woman. Force, according to the law, may be physical or threatened. When intercourse is accomplished without applying force, this is not rape in the eyes of the law. The victim must show resistance on her part and signs that force has been applied, except in mental diseases or narcosis, where she is not capable of putting up resistance. Intercourse with a child who has not reached the age of consent and against her will is regarded as a felony, whereas, if the female child gives her con-

sent, the act is regarded as a misdemeanor. The age of consent in America, for the most part, is fourteen years of age.

### MEDICAL TESTIMONY

The medical testimony deals with the absence or presence of contusions, lacerations, or other signs of genital damage. In some individuals the hymen may be so elastic as to permit repeated sexual relations without being torn or injured in any way and the majority of the signs of genital damage may disappear in four or five days. The one positive evidence of intercourse is the finding of the spermatozoa on the vulva or in the vagina. The presence of venereal diseases in both parties concerned may be used as medical evidence. One thing you should keep in mind is that so many single girls today wear the Tampax at menstruation instead of Kotex, and it does dilate the vagina, and the hymen is stretched to two fingers.

### PREGNANCY

In the last few years since the Aschheim-Zondek test has been in use, the man who does these tests should be on his guard in running these tests for girls who are single and possibly pregnant. He should say that the specimen of urine submitted is positive for pregnancy, as the urine might have been collected from a woman who is known to be pregnant and not from the particular girl in question. In civil law it often becomes the duty of the physician to appear in court to determine the presence or absence of pregnancy in women, especially in the following types of cases:

1. Those in which the virginity of a woman is to be determined.
2. Those in which a woman claims she was impregnated and is with child by a man recently dead, thus attempting to establish an heir in a disputed title or estate.
3. Cases in which pregnancy is claimed as a means of enforcing claims for unre-

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.



quited love or to establish a claim of financial support.

4. When pregnancy is advanced as a plea to prevent attendance upon the witness stand in an important trial by jury.

5. Those instituted for blackmail.

6. Divorce cases in which the wife is accused of illegitimate gestation.

7. Cases in which a woman is convicted of a crime and sentenced to capital punishment, but the woman pleads pregnancy to bar execution until the birth of the child is accomplished.

Before undertaking the examination of a patient for court procedures, it is best for the appointed physician to obtain the patient's signature to a statement that she is submitting to the examination of her own free will. Otherwise, the physician becomes liable to legal action on her part, the woman claiming that he examined her against her will. In cases where a woman refuses to submit to an examination, she should be warned by the physician that such action will expose her to suspicion of unfair dealings and may be used as valuable evidence against her.

#### *Diagnosis of Pregnancy*

In court, only positive signs of pregnancy can be accepted. In the first trimester of pregnancy we depend entirely on the Aschheim-Zondek test, but be sure to rule out the conditions that would give you a positive test such as hyperthyroidism, ovarian cysts, or cancer. In the second trimester the fetal heart and the X-ray evidence, which will show the fetal skeleton. Many times in court the question may be asked, "Is this young girl too young to become pregnant?" Or the woman in question may be past the menopause, and the question will be asked, "What is the latest period at which pregnancy can occur?"

#### *Precocious Pregnancy*

By this term we mean the occurrence of conception at an exceedingly early age. The earliest example of precocious pregnancy is recorded by Tidy. The patient began to menstruate at the age of four years and she delivered a living child when she was eight years old. However, it is not uncommon in

the colored race in the South to bear children at eleven, twelve, and thirteen years of age.

#### *Late Pregnancy*

There are cases on record of late pregnancy occurring in the fifth and sixth or seventh decade of life, but these are very uncommon. Halles report one case occurring at the age of seventy and another at the age of sixty-three. This is possible in women in which the menopause has been postponed, or those who continue to menstruate late in life, or the patient may cease to menstruate and continue to ovulate. As a rule, you may consider that each female can conceive from eight to sixty years of age, and it is possible for conception to take place even where there is not a ruptured hymen.

#### *Unconscious Pregnancy*

It is possible in the feeble-minded to be pregnant and go to term without ever knowing that she is pregnant. Also, it is possible for pregnancy to occur when the patient is unconscious, either from a blow, anesthetic, or a narcotic. As to how long she may go before realizing that she is pregnant depends on whether or not the patient is a virgin. A virgin who has been exposed to pregnancy during unconsciousness, upon regaining her consciousness, will have pain, swelling, and soreness of the vulva and vagina, which should call her attention to the possibility that she may have been impregnated. In case she is not a virgin, she may not realize she is pregnant until she is three to four months of gestation, when she will notice enlargement of the breasts and abdomen, and the fetal movements.

#### *Concealed Pregnancy in the Illegitimately*

#### *Pregnant*

It is not an uncommon thing for a woman to conceal her pregnancy. The law holds no obligation to make a pregnancy known, but the concealing of a birth is a serious matter.

#### *Pregnancy in the Dead*

Sometimes it becomes necessary to establish the presence or absence of pregnancy in a patient who has just died. The signs of pregnancy or delivery may be found in

the uterus and the vagina. The one diagnostic factor is that the nonpregnant uterus is one of the last organs of the body to undergo decomposition, while the pregnant uterus is the first organ to decompose. Therefore, a well-preserved uterus is accepted as positive proof of pregnancy not existing. In a woman who dies undelivered it is not uncommon for her to deliver the baby between her thighs several days after death due to the formation of gases in the abdomen, and this is known as "coffin birth." This is sometimes taken advantage of by women who have illegitimate babies that they have destroyed and who want to protect their status in life. They will know of some woman who has just died and they will take their child, after the coffin has been dug up, and place it between the thighs of the woman, and again, the condition of the uterus will be the diagnostic point.

#### *Signs of Delivery*

Sometimes the physician is called on to make an examination to determine the presence or absence of signs of recent delivery. I have had occasion to examine a colored woman who had taken a baby from the hospital in which she claimed that she had delivered five days previously. She had painted her vulva with mercurochrome and also used mercurochrome on the Kotex in order to get by her husband. Upon examination she had none of the signs of recent delivery or of ever having had a child. Her uterus was very small and anteverted, she also had a mid-line scar, and the hospital chart revealed that she had had both tubes and ovaries removed previously. She finally admitted that she had not menstruated in twelve years. She was given ten years in prison for kidnaping. Determining the signs of delivery depends, first, on the time since delivery and the time of examination, and second, the age or size of the child. In multiparas it is possible for them to have an abortion and after three or four days leave no remaining signs. After delivery of a full-term baby in multiparas there may be hardly any signs at all. However, in primiparas the signs of pregnancy are more marked, as the vulva will show signs of trauma, the lochia and cervix will

show signs of being edematous, lacerated, and enlargement of the uterus. The doctor is also called on to determine the presence or absence of delivery where a woman presents a child as heir to an estate or in feigned pregnancy and in case of infanticide.

#### *Unconscious Delivery*

"Can a woman unconsciously give birth to a child?" Such a question may be asked a physician in court in case of infanticide. The woman may claim that the baby was lost because she was not aware of what was taking place. Or she may claim that she mistook the labor pain for a desire to evacuate the bowels and thus dropped the child in a commode, killing it. We must say that it is rare indeed for a full-time baby to be delivered without the knowledge of the mother, unless she be under the influence of an anesthetic, narcotic, or alcoholic liquor. Also, it may be possible in profound sleep during a state of coma or syncope or in an apoplectic, eclamptic, or asphyxiated woman. Or if a woman is dying, delivery would be done artificially without her conscious volition. Unless a woman is suffering from any of the above-mentioned causes and she denies any knowledge of her delivery, her guilt should be assumed.

#### PRIVILEGED COMMUNICATIONS

The state of Tennessee has no law specifying what is privileged communication for a physician. Each court determines just what the physician should disclose and whether it would have any bearing on the case in question. However, any information that is transmitted to the doctor in the course of treating a patient is considered privileged communication. If the patient has gonorrhea or syphilis, and the physician discloses anything that may do the patient's character harm, this is considered privileged communications. You could tell the court that a patient has gonorrhea or syphilis, providing you are forced to, and this would relieve you of all liability as the court would then be liable.

#### CRIMINAL ABORTION

The law in Tennessee has the terms abortion, miscarriage, and premature labor one

and the same thing in the courts. They refer to the expulsion of the products of conception at any time before full term. By the term abortion we mean the expulsion of the product of conception before the child is viable, which is the seventh month, and premature labor is from seven months through eight and a half months. Miscarriage is a term that is used by the laity and should not be used in medical literature. Criminal abortion is recognized by all courts as a crime, and it consists of destroying by any means, without just and sufficient cause, an impregnated ovum at any stage of its development. If you are called to see a case of abortion, it is a safe rule to consider all abortions criminal unless proven to be otherwise. The physician waiting on a criminal abortion should never betray the name of the patient, since he may become liable for prosecution.

#### *Evidence of Criminal Abortion*

This is a question that sometimes is difficult for the physician to decide. However, if there are signs of trauma to the vagina or cervix and infection, you may be reasonably certain that it was induced. However, the patient's testimony that it was induced is more valuable than any evidence the physician may supply.

#### ARTIFICIAL INSEMINATION

In women who are desirous of children and their husbands are sterile, you may inseminate them legally. First, you should prove that her husband is sterile and get her written consent as well as his and be sworn to before a notary public, also, take their fingerprints. The donor should not be known to either the husband or the wife, and he should be picked from the same blood group as the husband and as near his physical type as possible. Any relative should not be used as it will sooner or later be told. The man who does the insemination should not deliver the expectant mother because when it comes to the question of filling out the birth certificate, he could not fill it out as graciously as a man who is not aware of all the facts in the case.

#### BIRTH AND LEGITIMACY

Each child born in wedlock is assumed to

be legitimate unless (1) it can be proved that the parents have been separated for a time beyond the period of gestation; (2) that husband is sterile; (3) adultery on the part of the wife; (4) repudiation of the alleged child by the husband. If a patient is so far advanced in pregnancy at the time of her marriage that her condition must have been known to her husband, it is deemed on his part an acknowledgment of both paternity and legitimacy. A child born after the death of its father or mother is legitimate although the marriage tie naturally is dissolved by death. A child may be conceived before marriage and be born after the death of the father or mother, and yet be legitimate, though not conceived nor born in wedlock.

#### *Law Relative to Legitimacy*

In America we do not have any law regulating the period of gestation in relation to legitimacy, each case being decided on its own merits. The old Roman law did not consider a child legitimate if born later than ten calendar months after the father's death. The French law considers a child legitimate if born 180 days after marriage and 300 days after the death of its father.

#### BIRTH INJURIES

Separation of the symphysis following delivery denotes some inherit weakness, as DeLee has shown that it takes 400 to 2,600 pounds of force to disrupt the pelvic girdle. Such cases that separate during pregnancy will separate again in each succeeding pregnancy.

#### OPERATIONS AND STERILIZATION

There is no specific law in Tennessee governing sterilization, although the patient and her husband both may give consent for her to be sterilized, or in case the husband is to be sterilized, both can give consent. However, this would not be legal due to the fact that no one can sign their birthright away. In case a patient should be sterilized without sufficient medical reason, the patient would have to prove in a malpractice suit that she suffered undue torture and pain which would make it criminal. It is safe in sterilizing a patient to have consultation



and two or more doctors agree that sterilization should be done. A post-mortem Cæsarean section may be done without consent, providing the child is living and there is no one around to give consent, it can be deemed as an emergency operation to save the child's life. If you are called to see a patient who is in labor, and if she is in a serious condition and should be taken to the hospital, you should accompany this patient to the hospital in the ambulance in order to avoid a suit due to negligence. Operations during pregnancy that are deemed necessary to save the patient's life should be done with consent, and if there is any indication as to whether there will be any future trouble, consultation should be had. However, operations can be deemed as an emergency to save the patient's life and whatever is necessary may be done without consent. It is a state law that all births from four and a half months' gestation or stillbirths should be reported within ten days to the local registrar.

#### RIGHTS OF A PHYSICIAN

A physician is not liable for malpractice arising from the exercise of the following rights:

1. He may refuse to respond to a call even though there is no other doctor available.
2. He is not bound to render professional service to anyone who applies for it.
3. He may withdraw from any case upon reasonable notice.
4. He has a right to demand payment regardless of outcome.
5. He has a right to practice that system of medicine which he has chosen to follow.

#### OBLIGATIONS OF A PHYSICIAN

A physician is subject to the following obligations:

1. To possess a reasonable degree of skill and learning.
2. To execute a reasonable degree of skill and care in the practice of his profession.
3. To keep abreast of times generally.
4. To follow accepted methods of treatment.
5. To leave detailed instructions and orders for the care of his patient.
6. To continue in attendance until discharged, terminated, or withdrawn.

7. To advise calling a consultant in difficult cases and use reasonable care in selecting one.

A violation of any of the above duties resulting in injury to the patient may constitute negligence and make you liable for malpractice. A doctor is not liable for errors of judgment, providing the error is an honest one. A doctor is liable for the mistakes of his assistants, providing they are on his pay roll. He is not liable for negligence of hospital nurses, interns, and employees of the hospital. Also, he is not liable for negligence of a substitute unless due care is not used in selecting the substitute. The obstetrician's grief is absence at birth, lacerated perineum, gauze left in vagina or placenta in uterus.

#### STATUTE OF LIMITATIONS

In this state suit for damage must be filed within the year or within one year after the patient becomes aware of what damage has been done.

#### SUMMARY OF DONT'S

1. Do not examine a woman without a third person present.
2. Do not tell a single woman she is pregnant.
3. Do not tell other people of your privileged communications.
4. Do not fail to keep complete records of physical findings and treatment.
5. Do not experiment with your patients. Follow accepted methods of treatment.
6. Do not fail to give detailed instructions for the care of your patient.
7. Do not abandon a patient without proper and sufficient notice.
8. Do not fail to have consultation in difficult cases.
9. Do not criticize your fellow practitioners directly or by implication.
10. Do not do a Cæsarean section on a dead baby or a monster.
11. Do not fail to register births, as sometimes it is very important to the individual to determine when he is of age and an heir to an estate.
12. You cannot stop anyone from suing you, but you can make it undesirable and

extremely discouraging by observing the above don'ts.

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### DISCUSSION

DR. C. W. FRIBERG (Johnson City): I enjoyed Dr. Hewitt's paper very much and thought it a very interesting and timely subject. I will quote in my discussion a number of the laws of this state taken from the Code of 1933.

In the Offenses Against Females (10780-10790), commonly known as rape, "Rape is the unlawful carnal knowledge of a woman, forcibly and against her will. Carnal knowledge is accomplished by the commencement of a sexual connection, and proof of emission is not required." That law was passed in 1829.

"Punishment: Whoever is convicted of the rape of any female shall suffer death by electrocution, provided the jury before whom the offender is tried and convicted may, if they think proper, commute the punishment for the offense to imprisonment in the penitentiary for life, or for a period of not less than ten years." This law was passed in 1829.

We have one case on record where the person was electrocuted for rape.

Pretending to be husband or mock-marriage is punishable the same as rape. Our laws state that a person helping another person in the act of rape is punishable the same as the person who commits the act. Administering drugs of any type to help them in the act of rape is punishable the same as rape, and it is interesting to note that according to the laws of our state a woman can be convicted of rape and be electrocuted for that by being an aider or abettor in a case of rape.

The law regarding abortion: "Every person who shall administer to any woman pregnant with child, whether such child be quick or not, any medicine, drug, or substance whatever, or shall use or employ any instruments, or other means whatever, with intent to destroy such child before its birth, unless the same shall have been done with a view to preserve the life of the mother, shall be punished by imprisonment in the penitentiary not less than one or more than five years." That law was passed in 1833.

"Woman is neither principal or accomplice, under this and does not fix any crime upon her, who is the subject thereof; she is the victim where the act is performed upon her by another, and her testimony needs no corroboration, but her moral implication is a proper question for the consideration of the jury in weighing her testimony." Some states have a law that the woman is a party in the crime when she goes to have an abortion in-

duced upon herself and her testimony is not any good; we do not have that here.

"A posthumous child of a testator, born within ten calendar months after his death not provided for in his will takes by descent such share of his estate as would have fallen to said child in case of intestacy, to be contributed by the devisees in the proportion of the several devisees of the whole estate." That law was passed in Tennessee in 1923.

DR. SAM COWAN (Nashville): Mr. President and Gentlemen of the Tennessee State Medical Association: It seems from Dr. Hewitt's paper and Dr. Friberg's quotation of the laws that the state of Tennessee certainly should have some new laws applying to medical jurisprudence, particularly obstetrical jurisprudence.

Dr. Hewitt's paper, while I enjoyed it very much, is a very difficult one to discuss. There are two points, however, that I think need to be called attention to. One is the value of the Aschheim-Zondek test. There are so many sources of error in the Aschheim-Zondek test that one should be quite careful in making a diagnosis of pregnancy on that test alone.

A large rabbit or a sick rabbit (I am speaking of the Friedman test now) will give you a false positive test inasmuch as the ovaries will be hypertrophied and the lutein cysts will be enlarged. Another condition that sometimes makes a false positive is that a rabbit will ovulate if it sees another rabbit, and particularly if it is in close contact with that rabbit, male or female, spontaneous ovulation will take place and will sometimes be responsible for a false positive.

Cases of long-standing amenorrhea from hyperthyroidism, from ovarian cysts, or even lactation amenorrhea will produce hypertrophied ovaries in the rabbit, as well as large cysts.

On the other hand, a stunted animal, either a rabbit or a mouse, will give you a false positive. It is almost impossible to inject enough hormone into that animal to give you a positive test.

There is one other thing that was mentioned by Dr. Hewitt that I think needs some attention. We get credit for a very high infant mortality, not only in this state but in other states, and when we are compelled to report cases of interruption of pregnancy at four and a half or five months and let that baby be charged against our infant mortality, I think that is entirely unjust.

DR. H. P. HEWITT (closing): (Dr. Hewitt read the summary of his paper.)

The only reason I gave this paper was to show that our laws governing legal medicine, especially the practice of obstetrics, are not very modern. The ones that are used to determine malpractice are based on the common law of pain and injury, and that is the sole reason we are sued, and they get judgment for malpractice. If they can prove we caused the patient pain and did some harm to the patient, we are subject to malpractice; otherwise they cannot do anything about it.

# THE SURGICAL TREATMENT OF CERTAIN TYPES OF HEART DISEASE\*

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**I**N THE MAJORITY of patients with chronic cardiac disease, the physician has to be content with relieving suffering, increasing the duration of life, and prolonging the period of economic usefulness, for the disease is by its very nature incurable. The only types of severe heart disease in which medical treatment is apt to effect a complete cure are diphtheritic myocarditis and cardiac insufficiency as a result of beriberi. There are, however, several maladies of the heart, some of them not at all uncommon, which respond brilliantly to proper surgical treatment. It is, therefore, of considerable practical value to divide cardiac disease into the nonsurgical types, in which the treatment usually has to be palliative, and the surgical types, in which complete cure can often be accomplished. The latter group of disorders constitute the subject of this paper.

Most "heart cases" belong to one of two general classes: (a) The anginal group presenting pain as the chief complaint and characterized by the great liability to sudden death; and (b) the congestive failure group having dyspnea as the most important symptom and presenting a marked tendency toward the development of dropsy. Surgical treatment has something to offer to properly selected cases in both of these groups.

The surgical treatment of angina pectoris is still in an unsatisfactory state.† Most such patients obtain much symptomatic relief from restriction of activity, regulation of life, reduction of weight in obese subjects, regulation of the environment so as to reduce stress and excitement to a

minimum, and judicious use of sedatives and of nitrites. It is only when these measures have failed, and when in spite of them the patient suffers while at rest from frequent and severe attacks, that the several operative procedures should be considered.

Under such circumstances the procedure of choice is that which paralyzes the sympathetic fibers by the injection of alcohol about the sympathetic cord and rami of the upper thoracic region. If this measure fails, cervical sympathectomy or complete thyroidectomy may be used. Levine and Eppinger<sup>1</sup> have the following to say in regard to total thyroidectomy: "The results obtained in this study indicate that total thyroidectomy produced specific clinical improvement in cases that were refractory to the ordinary methods of treatment. This seemed to be more definite in those with angina pectoris than in those with congestive heart failure. This operation should be undertaken, however, only after the most careful consideration of the diagnosis and prognosis. Furthermore, it must be evident that ordinary medical management has failed and that the operation is likely to result in improvement that is otherwise unobtainable." The operation described and advocated by Beck<sup>2</sup> is designed for the purpose of creating an increase in collateral blood supply to the heart. As performed at present, it consists of roughening the pericardium and epicardium and of placing powdered beef bone over the surface of the heart. A graft of skeletal muscle is then placed against the heart. Twenty patients with angina pectoris have been operated upon by Beck by this or a similar procedure. Eight of these died within ten days following the operation. At least five patients are greatly improved. We have had no experience with this procedure. Unless a marked decrease in the mortality rate results from future refinements in technique, the number of cases in which it is indicated will probably be quite small.

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.

\*\*From the Departments of Surgery and Medicine of Vanderbilt University.

†A discussion of the diagnosis of angina pectoris is beyond the scope of this paper. Admitting its difficulty in exceptional cases, we believe that an accurate diagnosis can be arrived at in the great majority of instances. The following remarks are naturally based on the assumption that the condition has been correctly diagnosed.



When one realizes that the average duration of life in anginal patients treated medically is five years, and that most such patients are at an age where life expectancy, even if angina were not present, would be rather short, and when it is further realized that conservative therapy properly applied usually produces marked symptomatic relief, he will naturally be very hesitant to recommend any operative procedure in a patient with this disorder. For the present the several operations should be regarded as methods of last resort to be employed only when less drastic procedures are entirely inadequate, and when life has become unbearable in spite of them.

The congestive type of chronic cardiac disease, characterized by dyspnea and edema as the chief clinical manifestations, is most commonly due to hypertension, arteriosclerosis, rheumatic infection of the endocardium and myocardium, and syphilis. None of these conditions are ordinarily amenable to surgical treatment. However, congestive heart failure may sometimes be due to arteriovenous fistula, to thyrotoxicosis, or to pericarditis, and under such circumstances operative procedures properly carried out may produce dramatic relief and oftentimes cure.

Arteriovenous fistula is a direct, unnatural communication between an artery and a vein. The connection is usually established as a result of trauma, but in some instances it is congenital in origin. Openings as a result of trauma are particularly apt to be made between vessels encased in a common sheath. The effect of the fistula is to divert a large part of the arterial current directly into the vein and it returns to the heart without having gone through the capillaries of the part for which it was intended. Thus, it is necessary in most instances that the output of the heart be increased if the part distal to the fistula is to receive sufficient blood for its requirements. As a result of this constant demand for added work, cardiac hypertrophy and dilatation take place in a large percentage of the cases. Since the cardiac enlargement is progressive and since there is no tendency to spontaneous closure of the fistula, operative treatment is indicated.

To one who is familiar with the condi-

tion, there should be no difficulty in diagnosis. The loud, persistent, continuous machinery-like murmur and the thrill are characteristic. We have had the pleasure of seeing the eighteen patients with this condition who have been treated in the Vanderbilt Hospital by Dr. Barney Brooks in the past ten years. There was rather marked cardiac hypertrophy in four of these, and it disappeared following closure of the fistula. There would doubtless have been hypertrophy in a higher percentage except for the fact that early operative treatment was employed. As to the method to be used, Brooks<sup>3</sup> states, "It is obvious that the ideal procedure is the closure of the fistulous opening and the restoration of the continuity of both the artery and the vein. It is not always possible to carry out this ideal procedure, and the records of all reported operations for the cure of arteriovenous fistula show such universally good results to follow the extirpation of the segments of vessels containing the fistulous opening that it is perhaps the best method to be used by those not particularly skilled in blood vessel suture." An interesting and unusual report is that of Rienhoff and Hamman<sup>4</sup> of a patient with streptococcus viridans infection at the site of the fistula. Recovery followed the extirpation of the fistula.

Of the several types of chronic cardiac disease which are amenable to surgical therapy, that caused by thyrotoxicosis is the most common. We need not go into detail concerning the diagnosis of hyperthyroidism. It may be pointed out, however, that in young subjects the common diagnostic error is to consider thyrotoxicosis present when in fact it is absent, while in elderly individuals the reverse mistake of overlooking it is more likely to be made. Such mistakes can be avoided only by careful correlation of clinical findings with the results of repeated measurements of the basal metabolic rate. It is important to remember that congestive heart failure, regardless of its cause, tends to cause an elevation of the basal metabolic rate, and if errors are not avoided it is necessary to check this function after proper treatment has gotten rid of the manifestations of congestion. In doubtful cases it is helpful to

investigate the effects of morphine, which will depress the elevated metabolism of heart failure, but not that of thyrotoxicosis; and of iodine, which lowers the metabolism in the latter condition, but not in the former. In any patient presenting symptoms referable to the heart, thyrotoxicosis should be suspected when one of the following symptoms is outspoken: (a) persistent, unexplained tachycardia; (b) auricular fibrillation, especially if paroxysmal; (c) warm, soft "silky" skin; (d) loud heart sounds with apical or basal systolic murmurs accompanied by a bounding or even collapsing pulse and a high pulse pressure, but without a diastolic murmur; (e) unusual restlessness and alertness; and (f) tremor, extrasystoles or enlargement of the thyroid gland.

When the decision has been made that a patient has cardiac symptoms as result of thyrotoxicosis, the preoperative management is of greatest importance. Rest and sedatives are of course indicated. If dropsy or dyspnea is present, digitalis should be employed, although many such cases respond rather poorly to this drug. Quinidine preoperatively and postoperatively will often prevent auricular fibrillation. The most useful drug, however, is iodine administered in the form of Lugol's solution, two to five drops three times daily for one to two weeks prior to operation. Under this treatment marked improvement usually occurs, and it is important that the operation be done as soon as the patient ceases to improve further, for otherwise the symptoms often tend to become aggravated, even though treatment is maintained. Perhaps the most common mistake in the surgical treatment is the removal of insufficient thyroid tissue. Myxedema is a rare sequel of subtotal thyroidectomy.

The clinical manifestations of acute intrapericardial pressure may be produced by any agency which results in the rapid accumulation of blood, sterile fluid, or pus in the pericardial cavity, such as a stab wound of the heart, rheumatic fever, or pyogenic infections, respectively. The most noteworthy signs on physical examination may include a moderate prominence of superficial veins and an increase in the venous pressure, tachycardia, a paradoxical pulse,

and a reduction in the pulse pressure, a moderate increase in the heart-pericardial area, and an absence or suppression of the pulsations of the heart on fluoroscopic examination. If the increase in intrapericardial tension persists for a number of days, the prominence of the veins becomes more marked as the continued pressure results in a stretching of their walls. The pericardium becomes larger, and there is a marked increase in the heart-pericardial area on both X-ray and physical examinations. If the accumulation of fluid or pus continues over a period of weeks or months, edema, ascites, pleural effusion, and an enlarged liver are to be noted. In some instances, and this is particularly true in tuberculous and pyogenic infections, the fluid is gradually absorbed and is replaced by a dense scar involving the pericardium and epicardium. This condition is most often designated as chronic constrictive pericarditis or concretio cordis. The findings on examination are quite similar to those encountered in a chronic effusion except that the area of heart-pericardial dullness becomes much smaller.

Chronic constrictive pericarditis was recognized many years ago, but it is only in recent years that the frequency of the disease and its response to treatment have been appreciated. This is demonstrated by the fact that Churchill<sup>3</sup> in 1929 was able to find in the literature the reports of only thirty-seven cases in which operation had been performed. Since that time, pericardiectomy for chronic constrictive pericarditis has been carried out on twelve patients in the Massachusetts General Hospital in Boston, on ten patients in the Lakeside Hospital in Cleveland, and on twelve in the Vanderbilt Hospital in Nashville. Nineteen undoubted cases of constrictive pericarditis have been observed in the Vanderbilt Hospital in the past seven years. Among these are included patients of Dr. C. S. Burwell, Dr. Hollis Johnson, Dr. O. N. Bryan, Dr. I. A. Bigger, and others.

Chronic constrictive pericarditis may be defined as a thickening and contraction of the pericardium or epicardium or both with the result that the heart cannot carry out satisfactorily its normal functions. The pericardial cavity may be completely oblit-



erated or there may be areas in which the two layers are not adherent. There may be areas in which small collections of fluid separate the two surfaces. Calcification may or may not have taken place. The heart muscle frequently exhibits atrophy as a result of the pericarditis, but there is rarely disease of the heart itself. Many years ago Chevers<sup>6</sup> had the following to say about constrictive pericarditis: "The principal cause of dangerous symptoms appears to arise from the occurrence of gradual contraction in the layer of adhesive matter which has been deposited around the heart, compressing its muscular tissue, and embarrassing its systolic and diastolic movements, but more particularly the latter." This explanation for the disability associated with the disease is still believed to be the most likely one.

The patients have varied in age from eighteen to seventy. Most of them complained of dyspnea on exertion, weakness, edema, an enlarged abdomen, cough, or edema of the feet and ankles. The impressive findings on examination are those of systemic congestion; that is, prominent veins, elevated venous pressure, an enlarged liver, ascites, peripheral edema, pleural effusion, tachycardia, paradoxical pulse, and distant heart sounds. Pulmonary edema and heart murmurs are rare. The area of cardiac dullness is usually normal or only slightly increased. The severe degree of systemic congestion is out of proportion to the moderate amount of dyspnea. The peripheral signs suggest ordinary heart failure, but the heart muscle itself is not primarily at fault.

In the consideration of the treatment of conditions causing a constriction of the heart, we shall omit those instances associated with terminal uremia and coronary occlusion. The quantity of fluid in such instances is usually small. Nonpurulent effusions usually do not require tapping. This is particularly true of the rheumatic. It is necessary more often to aspirate the tuberculous ones in order to relieve compression of the heart. It is generally agreed that an acute pyogenic pericarditis should be drained and that an acute tuberculous pericarditis with a large quantity of fluid

should be aspirated rather than drained. It is generally agreed that a pericardiectomy should be performed when a patient has constrictive pericarditis of an inappreciable degree due to a healed scar, tuberculous or otherwise in etiology. There are reasons for a difference of opinion as to the attitude to be adopted when the constriction is caused by a proliferative tuberculous process with activity. It is our belief that the patient with this type of disease who is getting progressively worse should have a portion of the scar removed. Pericardiectomy has been performed on twelve of our patients. Six have returned to work, and another is definitely improved.

It is important not to confuse mediastino-pericarditis with constrictive pericarditis because the treatment of the two is different. The former condition is usually a sequel of acute rheumatic pericarditis and is often associated with valvular disease of the heart. The heart is frequently quite large in contrast to a smaller heart in constrictive pericarditis. In mediastino-pericarditis, the pericardium is attached to the chest wall and there is usually a systolic retraction. Treatment consists of removing parts of the bony structures overlying the heart in order to lessen the amount of work which it is necessary for it to perform. A similar procedure is believed by some to be indicated in instances of marked hypertrophy of the heart without the presence of mediastino-pericarditis.

#### SUMMARY

Under certain circumstances, congestive heart failure may be relieved by surgical measures provided the underlying disease process is correctly diagnosed. The most important of such conditions are thyrotoxicosis, purulent pericarditis, constrictive pericarditis, adhesive mediastino-pericarditis, and arteriovenous fistula. Although the patients with cardiac disease due to these causes represent a decided minority, the results of surgical treatment are in many instances so satisfactory that the possibility of the cardiac disorder being in a given patient due to one of these conditions should be kept in mind. To fail to recognize one of the types of curable cardiac disease is to do a grave injustice to the patient.



The surgical procedures that may be used in the treatment of angina pectoris have been discussed. Although these measures offer some hope for the future, there are relatively few indications for their employment at the present time.

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#### DISCUSSION

DR. J. A. STEWARD (Chattanooga): Dr. Blalock's and Dr. Harrison's paper not only is interesting, but very timely. With the insurance actuaries telling us of the increased length of life and the increased incidence of heart disease, the attention of the medical world has been concentrated upon it. In addition to that, the technical advances, particularly in thoracic surgery, have made this field tempting from a surgical standpoint. It is interesting that this morning in two papers both the internist and the surgeon in discussing the heart should emphasize a conservative attitude with regard to surgery on the heart. Dr. Levinson emphasized it in discussion of anginal pain, and it was certainly Dr. Blalock's idea as well.

In discussing some of the surgical procedures which Dr. Blalock has carefully covered, we might well divide them into curative and palliative. Certainly the closure of arteriovenous fistulae and the reduction in size of the hypertrophied heart come as near being a curative procedure for the heart as anything that can be found. The pericardectomy is less so, for the reason that there usually has been an accompanying damage to the myocardium itself which cannot be removed. In the thyrotoxic cases, or rather the cases of congestive failure which have evidence of thyrotoxicosis, the total thyroidectomy seems to be indicated. Myxedema is a small price to pay for relief of the heart condition.

One step further has been advocated, but its

value remains to be estimated: total extirpation of the normal thyroid in cases of congestive heart failure. Judgment is still in abeyance, and we will have to wait a few more years for a longer series of cases before we can definitely pass upon this procedure.

Palliative procedures have been devised to avoid anginal and aortic pains in intractable cases by interrupting the afferent pain fibers. Perhaps the reason for failures in the various operations that have been done may be in the individual's anatomical variations. That will explain the failure of an operation in the hands of a man where he obtained successful results in other cases. At the present time the injection of alcohol into the upper four thoracic sympathetic ganglia seems to be holding the attention. It is a comparatively simple procedure, and with the records so far showing a sixty per cent complete success, it should be kept in mind, and in the intractable case it should be tried.

Most of these procedures are palliative, but most of the medical work that is done on the heart is also palliative. The field is still in its infancy. As we progress in this field, our minds had best be left open, but we should be very conservative, particularly in our prognosis. These cases must be studied not only from the standpoint of the heart, but the entire circulatory system. Realization must be kept in mind that the damage is already there. Too much must not be promised the patient by the surgeon.

We are very fortunate to have a paper such as Dr. Blalock's this morning.

DR. W. H. WITT (Nashville): Mr. Chairman and Gentlemen: This discussion calls to mind so many fields in which doctors have had the courage to branch out and do things and do them at the same time, I might say, both boldly and conservatively. I do not date back to the time when McDowell took out the ovarian tumor, but I do date back to the relative infancy of abdominal surgery, particularly pelvic and upper abdominal surgery, and it is a great credit to the medical profession, the surgical part especially, that they have been able boldly to go after these things.

I do not preach heresy except in a modified way by saying that for some reason or other I anticipated a greater future, a safer evolution, of total thyroidectomy for cardiac conditions than seems to be prevailing at the present time. I have a friend who does a good deal of goiter surgery, and he tells me that he does ninety per cent of the cases under local. That operation becomes more defensible and safer to perform. A good many cases of cardiac pain, probably some doubtful cardiac pain with a certain amount of shortness of breath, coronary disease, and rapid pulse are going to be helped by thyroidectomy.

With reference to the subject in hand, Dr. Blalock's paper primarily serves to call our attention to the fact that not all heart cases are merely calls for rest, sedatives, and digitalis, or other

conserving and regulatory means of safeguarding that important organ, and from an etiological standpoint we are challenged to look beyond rheumatic fever, syphilis, and hypertension and remember that the thyroid may be an important factor in the overactive and ultimately failing myocardium. Also that there are cardiopaths, and a decent number of them, the chief elements in whose symptoms and physical signs are the outcome of purely mechanical situations that demand purely, or largely, mechanical means for their betterment. It is this latter group and its probable relief by surgical procedures that we are particularly urged to keep in mind. We are asked to remember that rheumatic, tubercular, and other infective processes may very easily attack the pericardium, and not only the pericardium, but any of the mediastinal structures adjacent thereto; that in the one instance we may find the disease limited to the pericardium and the heart, giving us the typical concretio cordis; in another instance, of possibly varying etiology, reaching out and resulting in a more or less severe mediastinitis with adhesions to the pleura, the inferior vena cava, diaphragm, and even the lung itself. Such a pathological process necessarily brings about a physical status that varies distinctly from what we find in the purely valvular and myocardial structures or what we find in the cardiopathies that result from prolonged hypertension, or from thyrotoxicosis. In other words, murmurs, thrills, enlargements, and dropsy are not all the story.

He stresses that we have several physical findings that should put us on our guard. In the synechia cordis type we have the small heart usually, the weak sound, low blood and low pulse pressure, the paradoxical pulse, the venous distension, and associated with ascites and lower limb edema, and with, probably, very moderate subjective dyspnea. In another type, that of a general mediastinitis, we have usually a large heart, marked systolic retractions of the epigastric and parasternal areas, and other features that put us on guard.

For the detection of these signs I wish to urge the relatively slight value of the stethoscope and the very great value of the sense of sight and the sense of touch. In fact, if doctors could be required to use the stethoscope only at the end of a heart examination, it would result in a better evaluation of the great bulk of cardiopathies. And I freely confess that I am in no position to cast a stone at anyone else, and if all the thyrotoxic hearts and those of pericardial and mediastinal complications that I have overlooked could rise before me today I should appear much more subdued than I do. But in that oversight I am not alone. The autopsy records of the best hospitals in the world show many more pericardial and

mediastinal complications than are found noted in the clinical records. And furthermore, there are not a few instances in which venous engorgement, the paradoxical pulse, systolic retraction, even Broadbent's sign, one or more of these, may be present, and yet no pericardial pathology is present.

These facts call for very great care in the evaluation of physical signs.

I wish also to acknowledge the great value of fluoroscopic study in heart cases, particularly those with adhesions, intra and extrapericardial.

It goes without saying that surgery for the relief of the disabilities under which a heart struggles calls for an attitude of conservatism as well as for skill in the technical procedures.

DR. ALFRED BLALOCK (closing): I should like to thank Dr. Steward and Dr. Witt for their very splendid discussions.

In regard to Dr. Steward's discussion and with particular reference to the use of alcohol injections and sympathectomy, I think it is well to point out again that we should remember that all we are doing there supposedly is relieving pain. That, of course, is very important to the patient, but on the other hand pain may be a danger signal and the patient may possibly live longer with pain than without.

Dr. Witt referred to total thyroidectomy, among other things, and states that he thinks it may occupy a very favorable field in the future. I hope very much that he is correct in that. He is certainly correct in stating that there is little danger to total thyroidectomy when performed under local anesthesia, which is the way in which it should be performed. I think it well to point out again, as you know, that myxedema is a troublesome symptom, and it has to be treated following total thyroidectomy.

I should like to urge again that constrictive pericarditis, considered very rare in the past, be looked for. I am sure that it is not rare. The fact that we have had nineteen patients in a relatively small hospital in a period of seven years shows that it is not terribly rare.

In this part of the world where serous membrane tuberculosis is quite common, I am certain that there must be many instances of constrictive pericarditis or concretio cordis due to this cause. When we see a patient who presents a picture such as that of a patient with primary cirrhosis of the liver, we should keep in mind the fact that such patient may have a constrictive pericarditis, and the most important point in differentiating the two is that the venous pressure in constrictive pericarditis is elevated in the upper part of the body as well as the lower part of the body, and if one measures the pressure in the arm veins or neck veins, he will find it quite elevated in constrictive pericarditis, whereas it is essentially normal, as you know, in cirrhosis of the liver.

# THE JOURNAL

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H. H. SHOULDERS, M.D., Editor and Secretary

AUGUST, 1937

## EDITORIAL

### UNETHICAL PRACTICES BY ORGANIZATIONS AND INSTITUTIONS

There has grown up in recent years conditions in the practice of medicine which were not in existence just a few years ago. For example, organizations and institutions have come into being which deliver medical services. In many instances, the physicians who actually perform the professional services are the employees of the organization or institution as such.

In some instances these institutions have not felt themselves bound to comply with the principles of medical ethics. As a result, the doctors who are employed by the organization or institution are compelled to commit a violation of the principles of the code or give up their positions.

In some instances, the local medical society with jurisdiction in the matter of ethical practices is powerless to act by reason of the magnitude of the local institution or its financial resources as an endowed institution. As a result, no disciplinary action is taken. The instances of flagrant violations are continued and multiplied.

The American Medical Association became increasingly concerned with these developments and as a result of much thought on the part of the Judicial Council, the Council on Medical Education and Hospitals, and members of the House of Delegates, some very definite and practical plans of procedure have been adopted.

The Council on Medical Education is instructed to take into consideration the matter of ethical practices on the part of institutions as a basis for its rating by the council. In addition to this, under certain conditions the president of the American Medical Association is empowered and directed to appoint a committee to investigate the practices of an institution against which a complaint has been filed with the Judicial Council. In the event the investigating committee finds evidence warranting the filing of charges against the institution, the committee will file the charges and the case will be heard by the Judicial Council.

If the Judicial Council after a hearing should render a judgment that the institution is guilty of violating the principles of medical ethics, such an institution would be rated by the American Medical Association as an unethical institution, and in the case of a medical school and hospital the Council on Medical Education would be governed by the finding of the Judicial Council in making its rating.

The opinion is increasing that scientific and technical progress unattended by a corresponding increase in the observance of sound ethical principles may bring chaos rather than happiness.

In the past few years we have witnessed the attempt on the part of business and industry to adopt and follow "codes of fair practices." These attempts grew out of the recognition of the fact that more ethics and less skill might be better than more skill and less ethics.

### ENFORCEMENT OF THE PRINCIPLES OF MEDICAL ETHICS

The principles of medical ethics have existed for a long time. It has been necessary from time to time to define certain meanings; it has also been necessary from time to time to revise the methods by which disciplinary action may be taken when called for. For example, the terms "contract practice" and "free choice of physicians" are used with great frequency. Conditions have arisen out of which disputes have arisen



which made it necessary to formulate more specific definitions of these terms.

The following excerpt from the principles of medical ethics, as revised in 1937, is published below in the belief that the dissemination of this knowledge will serve a very great purpose:

"ARTICLE VI. — COMPENSATION  
*"Limits of Gratuitous Service"*

"Section I.—The poverty of a patient and the mutual professional obligation of physicians should command the gratuitous services of a physician. But endowed institutions and organizations for mutual benefit, or for accident, sickness, and life insurance, or for analogous purposes, have no claim upon physicians for unremunerated services.

*"Conditions of Medical Practice"*

"Section 2.—It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians of a community. To do this is detrimental to the public and to the individual physician, and lowers the dignity of the profession.

*"Contract Practice"*

"Section 3.—By the term 'contract practice' as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization, political subdivision or individual, to furnish partial or full medical services to a group or class of individuals on the basis of a fee schedule, or for a salary or a fixed rate per capita.

"Contract practice per se is not unethical. However, certain features or conditions if present make a contract unethical, among which are: 1. When there is solicitation of patients, directly or indirectly. 2. When there is underbidding to secure the contract. 3. When the compensation is inadequate to assure good medical service. 4. When there is interference with reasonable competition in a community. 5. When free choice of a physician is prevented. 6. When the conditions of employment make it impossible

to render adequate services to the patients. 7. When the contract because of any of its provisions or practical results is contrary to sound public policy. The phrase 'free choice of physician,' as applied to contract practice, is defined to mean that degree of freedom in choosing a physician which can be exercised under usual conditions of employment between patient and physician when no third party has a valid interest or intervenes. The interjection of a third party who has a valid interest or who intervenes does not per se cause a contract to be unethical. A 'valid interest' is one where, by law or necessity, a third party is legally responsible either for cost of care or for indemnity. 'Intervention' is the voluntary assumption of partial or full financial responsibility for medical care. Intervention shall not proscribe endeavor by component or constituent medical societies to maintain high quality of service rendered by members serving under approved sickness service agreements between such societies and governmental boards or bureaus and approved by the respective societies.

"Each contract should be considered on its own merits and in the light of surrounding conditions. Judgment should not be obscured by immediate, temporary, or local results. The decision as to its ethical or unethical nature must be based on the ultimate effects for good or ill on the people as a whole.

*"Commissions"*

"Section 4.—When a patient is referred by one patient to another for consultation or for treatment, whether the physician in charge accompanies the patient or not, it is unethical to give or to receive a commission by whatever term it may be called or under any guise or pretext whatsoever.

*"Direct Profit to Lay Groups"*

"Section 5.—It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group, or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary, or compensation received to accrue to the lay body or individual employing him. Such a pro-

cedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy."

#### NEW DEVELOPMENTS AND NEW CONCEPTS CONCERNING THE TUBERCULOSIS PROBLEM

New knowledge and the development of new methods of handling the tuberculous patients have brought new possibilities for the control and management of the disease on a large scale.

From an epidemiologic standpoint, cases of pulmonary tuberculosis may be divided into two groups: (a) the open cases; (b) the closed cases. The open cases are those who have tubercular bacilli in the sputum and, therefore, are capable of transmitting the disease by contact. The closed cases are those who do not have tubercular bacilli in the sputum and, therefore, are not capable of transmitting the disease by contact.

It has been demonstrated that treatment by pneumothorax, in suitable cases, has a double advantage. First, it is the best thing to do for the patient. Second, it converts the *open* case into a *closed* case by collapsing the cavity.

It has been demonstrated, also, that collapse therapy does not require the patient to remain continuously in a tuberculosis hospital. By a short stay in an institution the case can be studied and collapse accomplished if the case is suitable and a definite routine established for the patient. The collapse therapy can be continued at the home of the patient and the routine carried out.

These developments make it possible to apply the ideal treatment to the patient at home with the least cost to the patient and community. At the same time it accomplishes the tremendous advantage of making the patient's stay at home safe from the standpoint of contact with other people.

It now remains for some plan of procedure to be adapted to the needs of the various communities throughout the state. The responsibility rests on the medical profession to take the steps that will give the

patients in the home the advantage of these modern developments.

The collapsing therapy cannot be carried on by an inexperienced doctor safely. Any good doctor can become proficient, however, in a short period of time. It has been suggested that some one doctor in each local center of population should be trained to apply this means of therapy.

The only equipment required is an X-ray machine and the equipment necessary to administer the collapsing therapy.

The proposal has also been made that the various institutions in Nashville, and other centers throughout the state, have the facilities necessary to give the training to doctors and are strongly disposed to cooperate with the medical profession in giving the proper training to an adequate number of doctors throughout the state to give widespread use to these procedures.

We doctors simply cannot afford to neglect the application of these procedures to patients at home.

It is suggested that local societies throughout the state enter into a discussion of this subject with a view to arriving at some definite conclusion as to what steps each unit could take to accomplish the greatest good to these unfortunates.

There are at the present time an adequate number of institutions where the primary steps in collapsing therapy may be conducted and the patient returned home for the completion of the treatment there under the care of the family physician in cooperation with the man trained to administer the collapsing therapy.

### RESOLUTIONS

Whereas, God in his all-wise judgment has seen fit to take from our midst our friend and fellow practitioner, Dr. Charles M. Womack,

And, whereas, we feel that his passing brings to us an irreparable loss of a man who had devoted his life, his energy, and his ability to the alleviation of the suffering of mankind,

And, whereas, we feel so keenly his pass-

ing, not only as a friend, but as a valued member of our organization.

Now, therefore, we review briefly his splendid life.

Dr. Charles M. Womack was born March 4, 1873. His death occurred June 28, 1937. He was graduated from the University of Nashville, at Nashville, Tennessee, in 1902 and began the practice of medicine at Appleton, Lawrence County, Tennessee, the same year. He removed to Lawrenceburg, Tennessee, about 1907, where he practiced his profession until the time of his death.

Therefore, be it resolved that we the members of The Five-County Medical Society express our sincere sympathy to the bereaved family in the passing of this good man.

Be it further resolved that a copy of these resolutions be spread upon the minutes of our organization; a copy be sent to the State Journal for publication; a copy be sent to the family of the deceased, and copies be sent to the local newspapers.

Signed,

J. W. DANLEY,

L. C. HARRIS,

T. J. STOCKARD.

Read and adopted at regular meeting of the Five-County Medical Society meeting at Hohenwald, Tennessee, July 27, 1937.

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On May 7, 1937, death again entered our profession and took one of the young members of our profession, Dr. Joseph Williams.

Dr. Williams received his Bachelor of Science degree from the University of Chattanooga and his medical degree from the University of Tennessee.

He served internships at St. Thomas Hospital, Nashville, and the Knoxville General Hospital.

He practiced at Wind Rock, Tennessee, until failing health compelled him to give up his work.

While Dr. Williams was a young man, yet, he had a bright future before him.

"Death is another life. We bow our heads At going out. We think, and enter straight Another golden chamber of the king's, Larger than this we leave, and lovelier. And then in shadowy glimpses, disconnect,

The story, flowerlike, closes thus its leaves. The will of God is all in all. He makes, Destroys, remakes, for His own pleasure, all."

Be it therefore resolved: That the Chattanooga and Hamilton County Medical Society deeply deplore the passing of Dr. Williams, and be it further resolved, that to his bereaved father, Dr. G. Victor Williams, we extend our deepest sympathy and condolence. And be it further resolved that a copy of this preamble and these resolutions be sent to the father of the deceased, a copy spread upon our record book and a copy sent the Secretary of the State Medical Society.

Approved May 13, 1937.

E. A. GILBERT, *President*.

J. MARSH FRERE, *Secretary*.

Memorial Committee:

FRED B. STOPP, *Chm.*

E. S. BLAIR

R. E. SHELTON

J. B. MCGHEE

S. A. FOWLER

J. H. TAYLOR

H. RENNER

H. V. LARIMORE

STANTON H. BARRETT.

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The death of Dr. R. E. Lee Smith, at the age of seventy-two years, leaves a vacancy that is felt acutely by both the medical profession and the laity. Dr. Smith, who for fifty years was one of the most beloved physicians of White County, was the son of Dr. Henry Smith, a pioneer doctor of this county, and throughout his career exemplified one of his father's axioms: "'Tis better to rub out than to rust out." He was a member of his local medical society before it became a component society of the Tennessee State Medical Society, and later a charter member of the White County Medical Society.

We who lived with Dr. Smith realize that a true evaluation of his virtues would sound like gross exaggeration to the uninformed. His life was marked by a sincere reverence of women whom he loved and respected far above the capacity of the average man. His ability to soothe the sick did not end with



the alleviation of physical pain, but by a rare gift he could sympathize with and soothe the spirit of those in need. His life was characterized by a true and practical Christianity, a tireless energy to better his neighbor, reverence to women and loyalty to his profession and country.

We feel acutely the loss of so valued a man, and realizing that the loss is common to all whom he knew and served, have caused a copy of these resolutions to be furnished Dr. Smith's family, one to be spread upon the minutes of the White County Medical Society, and a copy furnished THE JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION.

Committee:

S. E. GAINES

E. C. MASON

B. L. UPCHURCH.

## NEWS NOTES AND COMMENTS

The Commonwealth Fund has a second group of physicians doing postgraduate work at Vanderbilt. Those now studying these intensive courses are Drs. Margaretta Keller Bowers, Lyles; V. O. Buttram, Crossville; W. J. Cameron, Sweetwater; O. H. Clements, Palmer; B. F. McAnulty, Bolivar; I. E. Phillips, Greeneville; R. B. Wilson, Clarksburg.

The group will complete its work in September and return to their homes.

As a result of the interest taken in the membership of their society the local secretaries have reported a total of 1,601 members to the state association. This is the largest membership since 1930.

We learned from the daily press that Drs. Carroll Turner and Nicholas Gotten have purchased the Dr. Edwin W. Cocke Sanitarium and Clinic at Memphis.

We are sure the profession will accord the institution the support it so well merits.

The Health and Safety Department of the Tennessee Valley Authority is being moved

from Knoxville to Chattanooga. Space has been found in the Pound Building.

Dr. James Crabtree is already in Chattanooga and Dr. E. L. Bishop will move September 1.

Dr. John Morgan Clack, formerly of Rockwood, has moved to Fairfax, Alabama.

The American Board of Obstetrics and Gynecology will hold its next general examination in San Francisco on June 13 and 14, 1938, immediately prior to the American Medical Association meeting. For particulars write Dr. Paul Titus, 1015 Highlands Building, Pittsburgh, Pennsylvania.

## MEDICAL SOCIETIES

### *Campbell County:*

The Campbell County Medical Society met in Jellico on July 29, 1937. Dr. R. W. Lewis was chairman. Members present were Drs. D. W. Moore, Wm. Gaylor, J. L. Heffernan, S. S. Brown, G. B. Brown, W. D. Gibson, F. J. Slemmons, Joseph McCain, R. W. Lewis, and R. J. Buchman.

The Constitution and By-Laws which were recently drafted were officially adopted by the members present. Definite plans were made to reinstate the suspended members of the society.

The essayist for the day unfortunately was not able to attend and read his paper, and the balance of the meeting was taken up with discussion of interesting and unusual cases. This discussion was led by Dr. Heffernan.

Dr. J. L. Heffernan will present a paper to the society at its August meeting.

R. J. BUCKMAN, *Secretary*.

### *Fayette-Hardeman County:*

The regular meeting of the Fayette-Hardeman County Medical Society was held June 25. The following papers were read:

"Coronary Thrombosis and Angina Pectoris with Special Reference to Differential Diagnosis," by Dr. W. C. Colbert, Memphis.

"Relationship of Plastic Surgery to General Practice," by Dr. W. M. Adams, Memphis.

*Greene County:*

The regular monthly meeting of the Greene County Medical Society was held at the Andrew Johnson Clubhouse at 6:30 P.M., July 6.

After dinner the meeting was presided over by the president, Dr. W. T. Mathes.

Dr. Jarrell Penn, of Knoxville, presented a paper on "Fractures."

Dr. Jesse Hill, of Knoxville, read a paper on "Functional Nervous Conditions."

The following guests and members were present: Doctors Jesse Hill, Jarrell and Herschel Penn of Knoxville, H. B. Anderson, M. A. Blanton, L. E. Coolidge, R. S. Cowles, N. H. Crews, L. E. Dyer, C. P. Fox, Sr., H. W. Fox, L. K. Gibson, Hal Henard, C. B. Laughlin, W. T. Mathes, and R. H. Miller.

HASKELL W. FOX, *Acting Secretary.*

*Greene County:*

"Differential Diagnosis of Acute Abdominal Pain" was the subject discussed August 3 at the regular meeting of the Greene County Medical Society by Dr. L. E. Coolidge. This was followed by a talk on the treatment of scarlet fever by Dr. R. S. Cowles.

The program followed the serving of dinner which was held at the Andrew Johnson Clubhouse at six-thirty. The president, Dr. W. T. Mathes, presided, and Dr. H. W. Fox acted as secretary.

Those present included Drs. L. E. Coolidge, R. S. Cowles, N. H. Crews, L. E. Dyer, C. P. Fox, Sr., C. P. Fox, Jr., H. W. Fox, L. K. Gibson of Johnson City, Hal Henard, W. T. Mathes, M. A. Blanton, J. T. Campbell, R. H. Miller of Memphis.

*Gibson County:*

The Gibson County Medical Society met July 26, in Trenton. Guest speakers were Drs. E. C. Mitchell and John Shea, of Memphis.

*Hamilton County:*

August 5—"Surgical Shock," by Dr. J. H. Barnett. "Fluids Postoperatively," by Dr. J. J. Armstrong.

The following papers are scheduled to be read:

September 2—"Psychiatric History," by Dr. J. B. Swafford. "Obstetrical Jurisprudence," by Dr. H. P. Hewitt.

September 9—"Malanoepithelioma," by Dr. Cecil E. Newell. "Intestinal Obstruction," by Dr. A. M. Patterson.

*Hardin, Lawrence, Lewis, Perry, and Wayne Counties:*

The Five-County Medical Society met in Hohenwald July 27. The following papers were read:

"Post-Partum Hemorrhage," by Dr. C. C. Stockard, Lawrenceburg. Discussion opened by Dr. Henry Moore, Savannah.

"Some Remarks on Fractures," by Dr. Duncan Eve, Jr., Nashville. Discussion opened by Dr. Paul Wylie, Hohenwald.

"Ruptured Graafian Follicle," by Dr. J. V. Hughes, Savannah. Discussion opened by Dr. J. H. Tilley, Lawrenceburg.

"The Early Management of Traumatic Injuries with Special Reference to Highway Accidents," by Dr. Battle Malone, II, Memphis. General discussion after presentation of paper.

The next meeting will be held in Linden, August 31.

*Knox County:*

There will be no meetings of the Knox County Medical Society during the months of July and August.

*Robertson County:*

The Robertson County Hospital entertained the Robertson County Medical Society at dinner Tuesday evening, July 20. The meeting was presided over by the president, Dr. E. W. Adair.

Dr. T. D. McKinney and Dr. Thomas Grizzard, of Nashville, were the essayists for the evening. Others attending were Drs. W. W. Winters, Dewey Foster, Nashville; J. R. Gossett, Adairville, Ky.; J. S. Freeman, M. P. Stone, W. W. Porter, J. E. Wilkison, A. R. Kempf, W. B. Dye, and R. D. Moore.

*White County:*

The White County Medical Society had its regular meeting July 8. We have not

(Continued on page 306)

## LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. Geo. C. Williamson, Columbia.  
 Vice-President for West Tennessee—Dr. F. K. West, Rossville.  
 Vice-President for Middle Tennessee—Dr. Jack Witherspoon, Nashville.  
 Vice-President for East Tennessee—Dr. Andrew Smith, Knoxville.  
 Secretary—Editor—Dr. H. H. Shoulders.  
 Assistant Secretary—Editor—Dr. W. M. Hardy.

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 Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.  
 Dr. W. L. Williamson, 915 Madison Ave., Memphis.

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 Ninth District—Dr. E. H. Baird, Dyersburg.  
 Tenth District—Dr. W. B. Burns, Memphis.  
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Delegates to the American Medical Association—  
 Dr. E. G. Wood, Knoxville; East Tennessee.  
 Dr. H. H. Shoulders, Nashville; Middle Tennessee.  
 Dr. H. B. Everett, Memphis; West Tennessee.

## Alternates—

Dr. E. T. Newell, Chattanooga; East Tennessee.  
 Dr. J. O. Manier, Nashville; Middle Tennessee.  
 Dr. E. C. Ellett, Memphis; West Tennessee.

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		W. L. Sumner, Ridgely (Lake)	C. L. Denton, Dyersburg
		J. O. McKinney, Friendship (Crockett)	
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		V. H. Crowder, Lawrenceburg (Lawrence)	
		Paul Wylie, Hohenwald (Lewis)	
		J. W. Frost, Linden (Perry)	
		J. T. Keeton, Clifton (Wayne)	
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## COMMITTEES

The following is a list of the standing committees of the Tennessee State Medical Association provided for in the constitution and by-laws and appointed by the proper authority, together with some special committees appointed under the authority of a resolution by the House of Delegates.

Some of the committees are appointed for a definite period. In such instances the appointment of the committeeman expires with the meeting of the House of Delegates in the year stated opposite his name.

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Dr. John B. Youmans, Nashville.

failed to meet for two years. Our programs are short but good. The attendance is good.

We have suffered the loss of two of our outstanding men by death within the last two months, in the persons of Dr. W. M. Johnson and Dr. R. E. Lee Smith. This loss is not confined to the county but is also a distinct loss to the state as a whole.

We have also lost two members by removal, Dr. Vernon Hutton of Ravenscroft and Dr. Isaac Barnes of Bon Air. This necessarily cuts our membership to ten and two of them are nonresidents. Our members are loyal and are attending our meetings regularly.

A. F. RICHARDS, *Secretary*.

## ABSTRACTS OF CURRENT LITERATURE

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

Impressions of Anesthesia in U. S. A. and Canada. Macintosh, Featherstone, Hunter, Sykes, and Magill. Proceedings of the Royal Society of Medicine, June, 1937.

Macintosh found the American profession generally adverse to the employment of the anesthetist nurse. But the lack of skilled medical anesthetists was the reason for the use of nurses. He considered nitrous oxide anesthesia as fair, but the lack of relaxation would make an English surgeon glare. He emphatically denies any infatuation with nitrous oxide secondary saturation. But he admires the skill of the Toledo anesthetists in resuscitation.

Featherstone found much ethylene used in the United States, but very little in Canada. Chloroform was not seen in use. He was impressed by the number of nurse anesthetists at the Mayo Clinic. At this clinic he noted the use of ethylene, nitrous oxide and ether preceded by a barbiturate. He also noticed the use of avertin, cyclopropane, etc.

Hunter visited the Crile Clinic in Cleveland and the Lahey Clinic in Boston. He was not impressed favorably with nitrous oxide as administered at the Crile Clinic and noticed that quite a quantity of ether was mixed with it. At the Lahey Clinic he noted with satisfaction the complete preoperative and postoperative examination given surgical cases to determine the anesthetic risk and to collect postoperative data. He regarded as won-

derful the use of cyclopropane administered intratracheally in thoracic surgery.

Sykes in a visit to Madison, Wisconsin, noted with pleasure the exhaustive records kept of every anesthesia, frequent blood pressure readings during anesthesia, and the research work. Magill at the Mayo Clinic marveled at the cooperation of experts in every branch of medical research. He found that the chief anesthetist Lundy had his own dissecting room.

### DERMATOLOGY

By E. E. BROWN, M.D.  
Doctors Building, Nashville

Clinical Experiences with Subcutaneous Oxygen Therapy (Current Researches in Anesthesia and Analgesia). John H. Evans, M.D., F.I.C.A., and C. J. Durshordwe, M.D., F.I.C.A., Buffalo, N. Y.

Report of results obtained in over 100 cases treated by subcutaneous oxygen, either alone or in conjunction with inhalation oxygen.

In June, 1935, J. H. E. took subcutaneous injections and also intravenous injections almost daily for several weeks in order to ascertain reaction and limits of safety. He then began personal investigation with it on patients.

The original intention was to give the oxygen for its general effect after being absorbed into the blood stream, but in the treatment of the first case, which was eczema, the possibility of oxygen producing beneficial local effects in diseases attracted attention. At first it was injected into the abdomen where there were no lesions. No change was noted after several treatments. He then began injections under the various lesions and in forty-eight hours there was unmistakable improvement. It was then decided to test the probable local effect of oxygen in all subsequent cases regardless of the disease. Various conditions were treated, viz., skin lesions, acute inflammatory conditions, arterial diseases of the upper and lower extremities, arthritis, nervous system, asthma, pneumonia, etc. Of the skin lesions eczema and acute inflammation seemed to respond best.

Apparatus and technique of administration were discussed.

Note: Results were encouraging enough to warrant further investigation.

### INTERNAL MEDICINE

By R. B. WOOD, M.D.,  
By D. R. THOMAS, M.D.  
Medical Arts Building, Knoxville

Benzedrine Sulphate and Atropine in Treatment of Chronic Encephalitis. Isidore Finkelman, M.D., and Louis B. Shapiro, M.D. A.M.A. Journal, Volume 109, No. 5.

Eleven patients with chronic encephalitis who were previously on atropine sulphate taking from

ten to fifteen drops of a five per cent solution three times a day, and one patient on scopolamine 1 100 grain three times a day, were given in addition twenty to thirty milligrams of benzedrine sulphate. In three cases tremor was diminished which heretofore had been uninfluenced. Oculogyric crises disappeared in two cases and decreased in five others. In eight patients reversal of insomnia by night and tendency to sleep by day took place. Ten patients had more energy and all (numbers not given) formerly needing a nurse in dressing were able to dress themselves. In two cases no benefit was seen.

**Progress in Internal Medicine—Liver and Biliary Tract** (A Review for 1936). Carl H. Greene, M.D., P.N.D.; Milton B. Handelsmann, M.D.; and A. M. Bahey, M.D. *Archives of Internal Medicine*, Volume 59, Number 4.

It is generally accepted that secretion of bile by the liver is continuous, but its discharge into the duodenum is intermittent and controlled by the sphincter of Oddi, which in the resting dog can withstand a pressure of from ninety to 250 millimeters of water. The pressure within the gall bladder is around 100 millimeters of water, hence storage in the gall bladder takes place. After a meal the sphincter of Oddi relaxes and the gall bladder contracts, creating during contraction a pressure of around 240 to 310 millimeters. Increased spasm of the sphincter of Oddi causes a marked increase of pressure in the biliary system which may cause biliary colic and if persistent would result in jaundice.

#### CLINICAL SYNDROMES ASSOCIATED WITH BILIARY STASIS

The literature on functional disturbances of the biliary system was summarized by Ivy and Sandblom in 1934. Greene, Twiss, and Carter pointed out that at least three types of disturbances productive of stasis and an associated symptomatology can be recognized clinically.

(1) A type found often in the obese, in older people and in patients presenting achlohydria, is absence of the normal acid chyme in the duodenum. There is lack of the normal stimulant to gall bladder contractions and an atonic distension takes place, resulting in epigastric or hypochondriac soreness or distress, which is most marked during fasting. Colic is infrequent and duodenal drainage may procure a large quantity of concentrated bile, but often only after stimulation by olive oil. Evidence of stasis may be noted by the presence of crystalline sediment. Improvement is noted after hydrochloric acid, olive oil, and a stimulating diet.

(2) In some cases of duodenal ulcer there are associated disturbances of the gall bladder. X-ray reveals evidence of duodenitis, periduodenal adhesions, pylorospasm, etc. It can be assumed that this interferes with normal evacuation of the

gall bladder which becomes distended and hypertonic. Frequent attacks of colic, occasional jaundice, hyperacidity, evidence of stasis in the gall bladder contents, which is obtained usually after stimulation, are the usual findings. Improvement is noted by use of a bland diet, antispasmodic drugs, and alkalis.

(3) The association of gall bladder symptoms as a result of other abdominal disease is frequently noted and is explained as a reflex vagal stimulation. The resulting spasm of the sphincter of Oddi causes distention of the gall bladder. Gastric contents and X-ray of the gastrointestinal tract reveals no pathology. Drainage reveals evidence of stasis and is obtained usually only after stimulation by magnesium sulphate. The condition responds to rest, sedatives, antispasmodic and salines.

Pharmacologic studies by various workers prove that nitrites may cause relaxation of the gall bladder as well as blood vessels, thus resulting in reducing intraductal pressure and relieving pain. Histamine, alcohol, ephedrine, epinephrine, acetylcholine, ergotamine, calcium chloride, caffeine, phenobarbital, and others had no effect on the tonus of the sphincter.

**Effect of cholecystectomy:** After removal of the gall bladder, sphincter tone is lost and bile dribbles into the duodenum as secreted, but this may be only temporary as in dogs it has been shown that pressure in the common duct is increased. Dilatation of the common duct after cholecystectomy is well known, and since the bladder is absent, biliary colic from the increased pressure may occur.

Drainage of the common duct after stones, cholangitis or chronic pancreatitis is generally accepted, but the length of time before removal of the tube is not so well known. Ravdin stresses the importance of clinical and microscopic study of the bile as a guide. Many point out the value of prolonged drainage to reduce the size of the duct, while Carter emphasizes the value of the food test. He measures the hourly drainage by day. When the sphincter of Oddi responds normally to food, the external drainage of bile is decreased or stops entirely after meals. If the sphincter does not respond to food, the amount of biliary drainage is increased after the meal. A normal response to food indicates the common duct is draining freely and the tube may be removed.

#### OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.  
Suite 316 Doctors Building, Nashville

**Operative Technic of Vesicovaginal Fistulas.** Joseph Halban, Vienna. *J. of Obs. and Gyn.*, 33: 1073, June, 1937.

The author bases this paper on his experience with approximately 140 repairs of vesicovaginal fistulas, which represents a considerable number



if we take into consideration the decrease in the number of fistulas due to improved obstetrics and the perfection of operative technic.

Better results have been due to simplification of the technic and adherence to the three following basic principles:

1. Extensive exposure of the fistulous area.
2. Mobilization of the base of the bladder.
3. Correct suture.

1. When it seems impossible to expose the field with correct application of posterior and lateral retractors it is essential to make an episiotomy or a unilateral or even a bilateral Schuchardt incision. If the fistula lies deep in the vaginal funnel, as so frequently occurs in those fistulas that result from gynecologic operations such as hysterectomy, the deep vaginoperineal incision according to Schuchardt's technic is essential.

2. Due to scars, usually made by forceps, etc., it is absolutely necessary to immobilize the base of the bladder. The operator uses Schauta's paralabial incision until lately he has found that his technic, beginning with the Schuchardt incision, has made the procedure simple and facilitates exposure with rapid mobilization of the bladder.

3. It is wise to ignore the fistula itself entirely in the placing of sutures and to sew the anterior and posterior portions of the floor of the bladder right over the fistula. These may be placed sagittally rather than transversely, but tension must be avoided. There is a second row of sutures placed, finally covered over by the vaginal mucosa. The essential point is to sew healthy bladder wall to healthy bladder wall, taking half the thickness in the suture and not too close to the fistula. Many general observations have been pointed out in this communication.

**The Clinical Management of Pre-Eclampsia and Eclampsia.** Boyd Harden. *The Pennsylvania Medical Journal*, 40: 835, July, 1937.

Aberrations in physiologic function resulting from abnormalities of physical habitus, malfunction of the glands of internal secretion, residua of infection and malnutrition are factors which add to the complexity of the bizarre symptoms and signs of the late gestational toxemias.

The empiric opinion that proteins should be restricted or eliminated in toxemias and eclampsia has for its sole support the belief that the appearance of protein in the urine constitutes a sufficient reason for its dietary restriction. On August 2, 1932, at the Elizabeth Steel Magee Hospital a regime designed to demonstrate the nutritional deficits in the late gestational toxemias was inaugurated. Preliminary reports have been made previously. The present paper presents diets used containing protein and tables recording the amount utilized and needed by the patient.

Protein stabilization treatment has stood a prac-

tical therapeutic test in the treatment of 522 patients with late gestational toxemia. The results, in constitutions presenting a wide variance of response to the demands of gestation would indicate that protein stabilization treatment has dealt with fundamental factors in the prevention of eclampsia.

## OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
Doctors Building, Nashville

**Diabetes and the Eye.** A. E. Goldfeder and M. A. Kopelovits. *Archives of Ophthalmology*, July, 1937.

In the Central Ukrainian Institute of Endocrinology a study was made of 500 diabetic patients.

Lowered tonus of the eyeball was found in fifty-three per cent of the patients. In 70.6 per cent of the young patients disturbance of accommodation was observed. Refractive errors were of myopic and hypermetropic character. Cataracts were found in 7.3 per cent. In the untreated diabetic persons the cataracts ripened very fast, while in the treated ones the ripening of the cataracts usually took many months. There were always vacuoles beneath the anterior capsule, also Wasserspalten (water slits). Extraction of cataract presented no difficulties provided that the patient's blood and urine were rendered free from sugar and acetone.

Diabetic retinitis (hemorrhagic type) was observed only in 1.8 per cent, mostly in elderly patients. Insulin therapy caused increase of hemorrhages in a few patients, so the authors believe that it should be given cautiously.

Since xanthelasma was found in 1.4 per cent the authors think that it may be connected with disturbance of carbohydrate metabolism. In thirty-five per cent there was weakness of ocular muscles or absence of convergence; only one patient suffered from paresis of the sixth nerve. In fourteen per cent there was anisocoria, and in 6.6 per cent Stellwag's and Graefe's signs were present.

**Influence of Vitamin A on the Regeneration of Corneal Epithelium.** E. Heinsius. *Archives of Ophthalmology*, July, 1937.

Clinical observations have shown that vitamin A applied locally has a favorable influence on the healing of wounds. Heinsius produced complete corneal abrasions on both eyes of the rabbit and watched the regeneration of the epithelium under the influence of cod-liver oil of pure vitamin A, which was instilled regularly into the conjunctival sac of one eye, while the other eye received only paraffin oil. The defects healed more quickly in the eyes which were treated with preparations of vitamin A. The vitamin D contained in cod-liver oil had no effect on the regeneration of the epithelium.

## OTOLOGY, LARYNGOLOGY, RHINOLOGY

By W. W. POTTER, M.D.  
Medical Building, Knoxville

**Otitic Meningitis with Recovery.** Sylvio A. Sciarretta, M.D. *Archives of Otolaryngology*, January, 1937.

A recovery from otitic meningitis is a rare occurrence and the author adds one very interesting case.

This condition occurs most frequently after an acute suppurative process and the infections are of a streptococcic nature. It occurs least frequently following a chronic suppuration of the middle ear and the mastoid. The spinal fluid does not contain microorganisms, as this is a localized septic process of a serous protective type.

A third type may follow an acute exacerbation of chronic otitis media and mastoiditis. This is more likely when the type 111 pneumococcus or streptococcus haemolyticus is the offending organism. This is the most fatal type.

Syphilitic osteitis and tubercular osteitis of the temporal bone may be taken into consideration in handling these cases, as both of these specific infections will modify the course of otitic meningitis.

The author believes that a meticulous study of the cerebrospinal fluid from every angle—chemical, bacteriologic, cytologic, and physical analysis is of greater assistance in solving the problem of whether there is a definite method of determining the operation on the labyrinth or the petros bone which would avert threatening meningitis. The dangers attendant on spinal puncture should not deter one from examination of the spinal fluid. The type of microorganism found in the fluid, especially in the growth rather than in the smears, is the most important point indicating surgical intervention on the labyrinth.

The cell count and type of cells are important.

Various surgical procedures are mentioned, but more cures have been obtained by doing a complete mastoidectomy with exposure of the dura and repeated spinal taps than by any other procedure. Bacteriologists are hopeful of forming a specific serum for this dreaded complication, but so far serologic treatment is of doubtful value.

## PEDIATRICS

By JOHN M. LEE, M.D.  
Doctors Building, Nashville

**Results of Blood Transfusions in Primary Pneumonia in Infants and in Children.** Jay M. Arena, M.D., Durham, N. C. *Amer. Jour. of Diseases of Children*, July, 1937.

During a period of three years at the Duke Hospital, one or more blood transfusions were

given to infants and children who had severe primary pneumonia. Because of difficulty in securing suitable donors, thirty-five of these patients did not receive transfusions, and these served as controls. The remaining twenty-four were given citrated blood by gravity (maximal amount, twenty cubic centimeters per kilogram of body weight). There were more infants and more ill patients in the group receiving transfusions than in the control group, otherwise the clinical symptoms and blood counts in the two groups were approximately the same.

Prompt and marked improvement usually followed the transfusions, the patient appeared more comfortable, the temperature fell by crisis within twenty-four hours in fifteen patients and within forty-eight hours in the other nine. The average interval between onset and crisis or lysis in this group was 7 9 10 days. Otitis media occurred in four of this group, and there was one death.

In the group that did not receive transfusions the average interval between onset and crisis or lysis was 9 9 10 days, nine developed otitis media, three had empyema, and five died.

From this experience the author feels that blood transfusions in primary pneumonia increase the chances for recovery. Apparently the only contraindication for transfusions in these cases is damage to the kidneys, and if blood which causes any sign of hemolysis is excluded, even children with that condition can be given citrated blood intravenously.

## ROENTGENOLOGY

By FRANKLIN B. BOGART, M.D.  
Medical Arts Building, Chattanooga

**Roentgen Studies of the Liver and Spleen.** Martin, C. L. *American Journal of Roentgenology and Radium Therapy*, Vol. 37, No. 5, pp. 633-643, May, 1937.

Pfahler has pointed out that films of good quality made at twenty-five-inch target distance usually outline the lower border of the liver. Radt in 1928 introduced the intravenous use of thorium dioxide to visualize the liver. Since it has been shown that the thorium dioxide is permanently retained in the reticuloendothelial system the author has not used it.

The use of pneumoperitoneum was popularized in this country in 1919 by Stewart and Stein, and Alvarez pointed out in 1921 that carbon dioxide could be successfully used. Its rapid absorption shortens the period of discomfort of the patient to an hour or less. The figures of Pfahler for the

normal size of the liver have been adopted. They are based on a twenty-five-inch target film distance and consist of the length of the liver, from the lower right edge to the highest point on the upper right border of the right lobe and the width of the liver from the highest point on the upper right lobe to the mid portion of the lower edge. The average length of the liver is 21.3 centimeters with extreme limits of eighteen centimeters to twenty-two centimeters and the average width is 12.8 centimeters with extremes of ten centimeters to fourteen centimeters. The length of the normal spleen was established at ten centimeters by the author, being based on the measurement of many normal spleens.

#### THE VERY LARGE LIVER

The very large liver should suggest carcinoma unless the blood shows evidence of leukemia or an adenopathy suggests Hodgkins. Barron and Litman in a study of 12,000 autopsies found the cause of fifty-nine large livers to be distributed as follows: fifty-three caused by malignancy, of which five were melanoma, two by leukemia, two by amyloidosis, and one by Hodgkins.

#### THE MODERATELY ENLARGED LIVER

Since all very large livers must at some time have been moderately enlarged the above listed causes must always be considered. Cardiac decompensation and acute infection may cause moderate enlargement, but the patients are too sick for such liver studies to be carried out. When jaundice is present, common duct obstruction, hypertropic (Hanot's) cirrhosis or hemolytic jaundice is suggested. A great variety of conditions are listed which may cause moderate enlargement of the liver, but many of them can be diagnosed by simpler methods than pneumoperitoneum.

#### THE VERY LARGE SPLEEN

Barron and Litman in their 12,000 autopsies found 102 spleens weighing 600 grams or more in noninfectious diseases. Of these 102 cases, thirty-five had leukemia, nineteen subacute bacterial endocarditis, fourteen cirrhosis of the liver, nine Hodgkins disease, eight heart disease, six carcinoma, four Banti's disease, three amyloidosis, two pernicious anemia, one melanoma, and one gumma of the liver. Pneumoperitoneum is contraindicated in acute infections and cardiac diseases. In the southern portion of the United States chronic malaria should be added to the list as one cause of very large spleens.

#### MODERATE SPLENIC ENLARGEMENT

A large number of blood dyscrasias produce some splenic enlargements, among them being hemolytic icterus, Von Jaksch's anemia, rickets, syphilis, Neimann-Pick's disease, Schuller-Christian's disease, sickle cell and splenic anemia and Gaucher's disease. Many rare diseases are listed as producing splenic enlargement, among them are xanthomatosis, endophlebitis, thrombosis of the portal and splenic veins, tuberculosis of the spleen, syphilis and echinococcus infections.

#### SUMMARY

1. Pneumoperitoneum constitutes a valuable method for determining the size and identity of solid soft tissue structures in the upper abdomen.
2. When the method is combined with other clinical procedures, it is often helpful in diagnosing many of the chronic disorders which cause changes in the liver and spleen.

### **SURGERY—GENERAL AND ABDOMINAL**

By BATTLE MALONE, II, M.D.  
1400 Monroe Avenue, Memphis

Treatment of Wounds. Darwin Kirby, M.D. *Industrial Medicine*, Vol. 6, June, 1937.

Emphasis is placed on the proper treatment of minor wounds to prevent infection and serious complications. The treatment advocated for minor lacerations consists of covering the wound with sterile gauze and thorough cleansing of the region around the wound with soap and water. The area is dried and painted with an antiseptic. One per cent novocain is injected around the wound. Next the wound is thoroughly scrubbed with gauze, cleansing the wound, and an antiseptic applied, though the author questions the value of this. Any bleeding begun by this procedure is then checked.

Gauze from a five-yard roll may be used to make a sterile drape and the wound is sutured. The author considers the scrubbing the most important factor in preventing infection.

In doing surgery on bones or tendons, the wearing of two pair of sterile gloves is advocated and considered important in reducing the incidence of infection. Thorough scrubbing of the hands should be carried out before the gloves are put on. Cultures made from the insides of gloves following operations showed a high incidence of positive findings.



### SYPHILOLOGY

By E. G. CLARK, M.D.

Tennessee Department of Public Health  
Nashville

#### Prophylaxis and Treatment in the Control of Syphilis.

J. Earle Moore. Southern Medical Journal, 30: 149, February, 1937.

The author points out that previous efforts toward the control of syphilis by reducing number of sexual contacts of human beings have failed.

Syphilis is preventable, however, by at least three different methods easily available to physicians. The biological fact that the organism is passed on through contact of one moist surface with another allows for mechanical prophylaxis, the condom. The extreme susceptibility of the treponema to mild antiseptics allows for chemical prophylaxis, soap and water, calomel ointment. Another chemotherapeutic prophylaxis is the use of treponemicidal drugs soon after the virus has penetrated the body tissues. This has proven effective in experimental animals, but the results in man are uncertain and inconclusive.

The reasons given for the failure of prophylaxis stations are (1) inconvenience, (2) fear of publicity, (3) fear of embarrassment, and (4) lack of compulsion. As for sanitubes, of 2,606,000 estimated to be sold annually, one-third are said to be worthless and another third unreliable. Mechanical prophylaxis is much better. The sale of condoms in the United States has increased ten times in the past five years, about 1,000,000 every twenty-four hours. The author believes the sale should be encouraged, but the quality should be controlled by the state.

Early treatment is by far the best method of control of spread of the disease. It has had spectacular success in Scandinavia in the past twenty-five years. Dr. Moore states that only fifty per cent of persons infected come under treatment while the disease is in its infectious stages. Facilities for treatment are now adequate. These should be developed, increased in number, and must be staffed by medical competency and not political preferment.

### UROLOGY

By TOM R. BARRY, M.D., F.A.C.S.

By G. A. WILLIAMSON, JR., M.D.  
Medical Building, Knoxville

#### Primary Carcinoma of the Urethra. John S. Lewis, Jr. Medical Record, July 7, 1937.

While primary carcinoma of the urethra is not

a common disease, it is quite evident that it is either becoming more prevalent, or is being recognized more frequently. The total previously reported cases are well over 150. To these the author adds seven cases of his own. The disease seems to be slightly more common in the female than the male.

Unfortunately, the tendency of patients with this disease is to report to the doctor for examination after the condition is well advanced. This should not be the case in an organ as accessible as the urethra, and too many go unrecognized as having malignant disease until it is well advanced.

There is no group of symptoms characteristic of urethral carcinoma. The more common symptoms are chronic irritation, urethral discharge, usually of a bloody character, strictures that do not respond normally to treatment, especially those occurring late in life, and those that bleed profusely on slight manipulation, dull aching in the region of the urethra, diminution in the force of the stream, and even acute retention of urine.

Diagnosis can only be made by biopsy and microscopic study. A biopsy should be made in all suspicious lesions of both the male and female urethra.

The treatment consists of surgical or electrical excision of the growth followed by radium or X-ray.

The prognosis is favorable when the diagnosis is made early, and very unfavorable when made later after glandular metastasis has occurred.

### BOOK REVIEW

Carcinoma of the Female Genital Organs. M. C. Malinowsky and E. Quater. Translated from the Russian by A. S. Schwartzmann, A.B., M.D.

This is a very valuable presentation, covering the facts known about carcinoma as it invades the female sex zone. The method of attack of the problem in the Soviet Russia is clearly discussed and it is an exhaustive, thorough elucidation of carcinoma of the female sexual sphere.

The first chapter discloses all the later theories of etiology. Concerning the incidence, the author states: "Carcinoma of the cervix of the uterus represents 14.4-15.5 per cent of all cases of carcinoma." In the following chapters the clinical

picture, metastasis, surgical treatment, roentgen therapy, and palliative treatment are discussed.

The final chapter, title, "Carcinoma of the female sexual sphere and disability," is a rather weird point of view in considering carcinoma in the female. However, it is interesting to note the

problems of disability arising under the social legislation of Russia—CCCR.

This is the first United States edition with 255 pages, many illustrations in color published by Bruce Humphries, Inc., price \$5.00.

HAMILTON V. GAYDEN, M.D.

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# THE JOURNAL

OF THE

## TENNESSEE STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE

ISSUED MONTHLY, Under Direction of the Trustees

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H. H. SHOULDERS, M.D., Secretary and Editor

W. M. HARDY, M.D., Asst. Secretary-Editor

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Volume XXX

SEPTEMBER, 1937

No. 9

### PROCEEDINGS OF THE HOUSE OF DELEGATES, ONE HUNDRED FOURTH ANNUAL MEETING, TENNESSEE STATE MEDICAL ASSOCIATION, ANDREW JOHNSON HOTEL, KNOXVILLE, TENNESSEE\*

APRIL 13, 14, 15, 1937

#### TUESDAY AFTERNOON SESSION

The opening session of the meeting of the House of Delegates of the Tennessee State Medical Association, held in connection with the One Hundred and Fourth Annual Meeting of the association, at the Andrew Johnson Hotel, Knoxville, April 13-15, 1937, convened at two-thirty o'clock, Dr. E. R. Zemp, Knoxville, Speaker of the House of Delegates, presiding.

THE SPEAKER: The house will come to order.

Another year has rolled around since we last met. I hope you have all fared well and are happy and prosperous, and that you will have a most enjoyable time here in Knoxville. We certainly extend to you every courtesy conceivable to make your stay pleasant as well as profitable. (Applause.)

As has been my intention in the past, I hope that all my rulings will be just and true as I see them. If any mistakes are made, we will correct them. Everybody will have a perfect right and a full chance to talk all he wants to, as far as the rules will permit him, and we will not have any partiality. Every member should feel he is indeed a member of this House of Delegates, representing his local medical society and has a perfect right to express his opinion, and to stand up and discuss whatever he wishes to.

Mr. Secretary, we will proceed with the roll call. Secretary Shoulders called the roll.

\*Some years ago the House of Delegates authorized the secretary-editor to abridge the minutes of the annual session to the extent of deleting much of the discussion on the floor.

This action was taken because one issue of the JOURNAL of standard size, even in small type, would not carry the minutes of one session in full.

In the present issue the minutes of the 1937 session of the house are printed in full as reported by the official reporter.

The task of deleting was completed and then discarded for the reason that, in our opinion, it is necessary to include all the discussions in order to convey to the membership a definite understanding of the issues presented and considered by the house and the actions taken by the house.

THE SPEAKER: I rule that the roll call as heard, and the ex-presidents and the officers, constitute a quorum present. Right now we will appoint the committees, so they can function.

#### COMMITTEES APPOINTED

*Credentials Committee*—E. A. Guyness, Knoxville; A. M. Patterson, Chattanooga; J. B. Wright, Pulaski.

*Committee on Reports of Officers*—O. N. Bryan, Nashville; W. B. Burns, Memphis; J. G. Moss, Johnson City.

*Committee on Reports of Committees*—Percy Wood, Memphis; W. F. Fyke, Springfield; S. R. Miller, Knoxville.

*Committee on Resolutions*—M. S. Roberts, Knoxville; D. R. Pickens, Nashville; H. B. Everett, Memphis.

*Committee on Amendments to Constitution and By-Laws*—W. P. Wood, Knoxville; C. M. Hamilton, Nashville; J. B. Stanford, Memphis.

The first named is chairman.

The Credentials Committee proceeded to distribute badges to the accredited delegates.

THE SPEAKER: We have with us a most distinguished visitor, friend, and fellow compatriot, Dr. Heyd of New York, president of the American Medical Association, who will now speak to us.

The audience arose and applauded.

#### AN ADDRESS BEFORE THE HOUSE OF DELEGATES

DR. CHARLES GORDON HEYD: Mr. President and Members of the House of Delegates of the Medical Society of the State of Tennessee: There was a great possibility that, through no fault of mine, I would have to forego the pleasure



of coming here. That would have been a very great regret to me because I am indebted to your delegation to the American Medical Association last year at Kansas City for my election to the office of president of the American Medical Association. So I at this time wish to bring quite sincerely the laurel of grateful appreciation to your society.

Of course, traveling around the country to the various state meetings, I have ceased being a practicing surgeon, apparently, and I may with apology state that my name is Heyd. You can easily remember it; if, you think of the Latin for hell, Hades, and drop the "s," then you have the right pronunciation.

One of the curious things, gentlemen, is this good man here, who has been calling me Heyd (Hade) all morning, introduced me as Hyde, so I apparently have a double character, which reminds me of a medical meeting I attended. It was a little bit irregular. During the course of the discussion one of the men yelled out, "I can lick anyone in New York State." Nobody paid much attention to him, because we often have that said to us up where I come from. He got emboldened and said, "I can lick anyone east of the Mississippi." That brought a number of entries into the field, and, when he recovered, he said, "My trouble was I bit off too much territory." (Laughter.)

So today we see medicine under attack, and yet I fancy that the attack is lessening. From sources of information and contacts, I do not believe that there is any immediacy in the administration going into a socialized medical program or compulsory health insurance. There are a number of reasons that support that, yet it behooves us to make our organization so effective and to remember that after all our chief purpose in the intricate pattern of society is that of service.

Medicine, organized or unorganized, will not go far unless it maintains that the first symbol of its existence is its contribution to society. For, in the long run, gentlemen, what helps society helps the practice of medicine. Society cannot go on without the contribution of the doctor class.

One of the things that the embattled Babbitts of uplift fail to remember is that you cannot force a medical service on a community until the cultural level of that community is prepared for it. What good is it to send 1,000 toothbrushes into a community where not one individual in that community knows the value of teeth or what they represent? So that, when we speak of adequacy of medical service, we must define the term "adequacy." If it means bringing every conceivable scientific factor that we have for medicine into backward areas where the individuals, unhappily, can neither read nor write, where they are ill clothed, badly housed, and no sanitation, then you cannot bring that medical service to that community. That is why the problem of medicine

is not one whole problem throughout the United States. The problem of medicine is local to the community wherein it has its origin.

That is why a scheme for universal pattern will probably not be attempted and not succeed. All men are not always alike in all places, and the measures that are good in one instance may not be those that are socially enlightened in another.

As I have visited the various state societies, I have been impressed with that disciplined loyalty that I like to use as is represented by the state societies. I have yet to go to a state society to find any great diversion of opinion among the members of that society, but I am impressed with the new realization in all of the state societies, of their particular purpose and of the importance of their contribution.

Now, you gentlemen represent the county units, and you make up the state society. The forty-eight state societies make up the national society. The national society is *your* society. You are its stockholders; you are its soul and its substance.

Without you, the national society does not function; without the county society, the state society does not function. Perhaps I can illustrate that by a little anecdote.

There is in the city of Stroumberg a magnificent clock. It tells the time; it demarks the days, the seasons, the equinoxes, possibly the eclipses. It is a great, big, magnificent structure, big wheels and then little wheels. But way down underneath is a little bit of a spring, no larger than a half inch, and that little spring marks out just one second of eternity, to and fro, for all time. That second spring determines the movement of that entire edifice.

So do you delegates of the county societies. You are the units of service that make the two million dollar plant at Chicago function, that employs nearly 600 people, that has spent over three-quarters of a million dollars since 1905 in improving medical education, and is the unequivocal voice of the great profession of medicine in this country.

Every doctor is a member of the American Medical Association. It has no special allegiance. It represents medicine marching forward, puissant and powerful. (Applause.)

THE SPEAKER: We will proceed to our usual routine of business.

THE SECRETARY: Mr. President, I have here the minutes of the meeting of last year, published in the June JOURNAL of the State Association. I am certain that you do not want to hear all of this read. You probably have read it yourself.

I would like to move that they be adopted as published, if there are no objections.

The motion was seconded by Dr. W. B. Burns, put to a vote and carried.

THE SPEAKER: We will now hear the Treasurer's report, Dr. C. M. Hamilton of Nashville.

### REPORT OF TREASURER

TREASURER HAMILTON: Mr. Speaker, I wish to submit a certified audit of the finances of the association as the Treasurer's report. Since I have become custodian of the Postgraduate Instruction Course in Obstetrics, I wish to make also a financial statement for the first quarter of this year, of those funds.

### REPORT OF AUDIT FOR YEAR ENDED DECEMBER 31, 1936

To the Chairman and Board of Directors, Tennessee State Medical Association,  
Nashville, Tennessee.

SIRS:

Pursuant to engagement we have made an audit of the cash receipts and disbursements records of the Tennessee State Medical Association for the year ended December 31, 1936.

The results of our examination are presented in the accompanying comments on audit and on the exhibit and schedules designated as follows:

*Exhibit "A"—Statement of Receipts and Disbursements for the Year Ended December 31, 1936.*

Schedule A-1—Cash in Banks.

Schedule A-2—Statement of Receipts by Months for the Year Ended December 31, 1936.

Schedule A-3—Statement of Medical Defense Fund for the Year Ended December 31, 1936.

Schedule A-4—Statement of General Fund for the Year Ended December 31, 1936.

Schedule A-5—Investments as at December 31, 1936.

### Comments on Audit

Cash in banks, \$1,804.31, was represented by the cash on deposit on December 31, 1936, with the American National Bank, Nashville, Tennessee, \$1,537.12, and the Third National Bank, Nashville, Tennessee, \$267.19, as shown by the reconciliations presented on Schedule A-1.

Cash Receipts appearing on the Receipts Register were traced into the depositories and thorough tests made indicated the proper accounting for receipts.

Cash Disbursements were verified by examination of cancelled checks as to signatures and endorsements, and by checking the amounts with the entries in the Register. Details are shown on Schedule A-4.

Investments, \$12,571.00. The association owned on December 31, 1936, First Mortgage Real Estate Notes in the principal amount of \$8,450.00, and Home Owners Loan Corporation Bonds, of par value \$4,000.00, cost value \$4,121.00. The securities were examined by our representative on April

7, 1937. On Schedule A-5 a complete description of the notes and bonds is shown. For the purpose of record the bonds are shown at cost, \$4,121.00.

### General

Fire Insurance on Office Furniture and Fixtures in the amount of \$500.00 and a Fidelity Bond on the Treasurer, Dr. Charles Marshall Hamilton, were in effect on December 31, 1936.

As the records are kept on the Cash Receipts and Disbursements basis, we have not attempted to prepare a schedule of assets and liabilities at December 31, 1936. However, it is deemed proper to mention that at December 31, 1936, the cost of the November, 1936, and December, 1936, JOURNALS aggregating \$678.37 were unpaid. These items were paid in January, 1937, together with other 1936 bills of nominal amounts.

Respectfully submitted,

OSBORN & DUNCAN.

By C. M. DUNCAN.

Certified Public Accountant.

April 9, 1937.

### EXHIBIT "A"

### Statement of Receipts and Disbursements for the Year Ended December 31, 1936

RECEIPTS	
Dues .....	\$9 338.50
Advertising .....	4,657.24
Subscriptions .....	34.70
Inserts and Cuts .....	129.74
Exhibits .....	400.00
Interest on Investments .....	631.43
Principal on Investments .....	275.00
Miscellaneous .....	28.95
Total Receipts .....	\$15,495.56
DISBURSEMENTS	
Medical Journal, Schedule A-4 .....	\$3,543.53
Convention, Schedule A-4 .....	726.89
Salaries, Schedule A-4 .....	4,918.00
General Expense, etc., Schedule A-4 .....	6,380.31
Total Disbursements .....	\$15,568.73
Excess of Disbursements Over Receipts .....	\$73.17
Represented by:	
General Fund Balance, 12-31-35 .....	\$1,391.33
Medical Defense Fund Balance, 12-31-35 .....	486.15
Balance in Banks, 12-31-35 .....	\$ 1,877.48
Balance in Banks, 12-31-36 .....	1,804.31
Decrease in Bank Balance, Year Ended December 31, 1936 .....	\$73.17

### SCHEDULE A-1

### Cash in Banks December 31, 1936

Balance, American National Bank, Per Bank Statement and Books, 12-31-36 .....	\$1,537.12
Balance, Third National Bank, Per Bank Statement, 12-31-36 .....	\$404.69
Less Outstanding Checks:	
12-31-36, W. M. Hardy .....	\$75.00
12-31-36, Willard Batey .....	62.50
Balance, Per Books, 12-31-36 .....	\$ 267.19
Total Cash in Bank, 12-31-36 .....	\$1,804.31
Exhibit "A" .....	

**SCHEDULE A-2****Statement of Receipts by Months for the Year Ended December 31, 1936**

Month	Total	Dues	Advertising	Interest on Investments	Payments on Principal of Investments	Miscellaneous
January	\$ 4,588.67	\$4,212.00	\$ 362.92			\$ 13.75
February	1,339.70	936.50	350.20			53.00
March	2,197.56	1,336.00	468.93	215.63	75	102.00
April	1,469.00	1,000.00	369.00			100.00
May	938.90	348.00	312.45	27.00	50	201.45
June	610.58	312.00	294.58			4.00
July	494.99	150.00	343.79			1.20
August	464.96	54.00	341.02	56.94		13.00
September	772.66	174.00	403.32	180.97		14.37
October	486.89	60.00	401.77			25.12
November	541.89	60.00	420.39			61.50
December	1,589.76	696.00	588.87	150.89	150	4.00
Totals	\$15,495.56	\$9,338.50	\$4,657.24	\$631.43	\$275	\$593.39

**SCHEDULE A-3****Statement of Medical Defense Fund for the Year Ended December 31, 1936**

Balance in Fund, 12-31-35	\$486.15
Transferred to General Fund	486.15
Balance, December 31, 1936	—0—

**SCHEDULE A-4****Statement of General Funds for the Year Ended December 31, 1936**

Balance, December 31, 1935	\$1,391.33
Transferred from Medical Defense Fund, Schedule A-3	486.15
	\$ 1,877.48

**RECEIPTS**

Dues	\$9,338.50
Advertising	4,657.24
Subscriptions	34.70
Inserts and Cuts	129.74
Exhibits	400.00
Interest on Investments	631.43
Principal on Investments	275.00
Miscellaneous	28.95

Total Receipts \$15,495.56

Balance \$17,373.04

**DISBURSEMENTS**

Medical Journal:	
Printing	\$3,333.39
Cuts and Half Tones	129.00
Reports	81.14

Total \$ 3,543.53

Convention Expense:	
Reporting Service	\$ 399.99
Programs and Supplies	173.40
Badges	33.65
Travel Expense	119.85

Total \$ 726.89

Salaries:	
Dr. C. M. Hamilton	\$ 100.00
Dr. H. H. Shoulders	1,500.00
Dr. Wm. Hardy	1,800.00
Miss Willard Batey	1,500.00
Mrs. Va. Bass	18.00

Total \$ 4,918.00

General Expense and Other Disbursements:

Travel Expense Other Than Convention	242.87
Postage	130.00
Rent, Heat, and Light	661.96
Office Supplies	189.47
Towel Service	13.00
Letter Service	26.90
Bond for Treasurer	25.00
Check Returned	2.50
Clipping Service	3.00
Press Information Bureau	12.00
Binding 1935 Volume	5.00
Door Lettering	1.50

Venctian Blinds	\$ 19.00
Rent on Lockbox	6.30
Refunds	6.50
Dictaphone	405.00
Audit	65.00
Bonds	4,156.46
Furniture	3.53
American Medical Association	12.00
Southern Press Clipping Bureau	7.40
Janitor Expense	11.60
Expense of Educational Committee	374.32

Total \$ 6 380.31

Total Disbursements \$15,568.73

Balance in General Fund, 12-31-36 \$ 1,804.31

**SCHEDULE A-5****Investments December 31, 1936****First Mortgage Real Estate Notes (A)**

Maker	Dated	Due	Ext'd to	Bal. 12-31-35	Paym'ts 1936	Bal. 12-31-36
J. H. Horn	6-1-29	6-1-32	6-1-40	\$2,100	\$ 150	\$1,950
W. C. Farrar	6-1-29	6-1-32	12-1-37	2,125	125	2,000
P. F. Skelley	9-1-31	9-1-36		4,500	4,500	
General Securities Co.	4-1-36	5-1-41				1,400
A. D. Talley	7-1-36	4-1-41				1,600
Louise Shields	10-1-36	10-1-46				1,500

Total First Mortgage Real Estate Notes \$8,450

**Bonds (B)**

No.	Maturity Date	Int. Rate	Int. Due Dates	Par Value	Cost
H.O.L.C. AT206058 J	5-1-52	3%	5-1-11-1	\$ 100	
H.O.L.C. AT225451 A	5-1-52	3%	5-1-11-1	100	
H.O.L.C. AT228344 D	5-1-52	3%	5-1-11-1	100	
H.O.L.C. AT228345 E	5-1-52	3%	5-1-11-1	100	
H.O.L.C. AT228346 F	5-1-52	3%	5-1-11-1	100	
H.O.L.C. AT244107 H	5-1-52	3%	5-1-11-1	100	
H.O.L.C. AT244108 J	5-1-52	3%	5-1-11-1	100	
H.O.L.C. AT244109 K	5-1-52	3%	5-1-11-1	100	
H.O.L.C. AT244110 L	5-1-52	3%	5-1-11-1	100	
H.O.L.C. AT253921 A	5-1-52	3%	5-1-11-1	100	
H.O.L.C. M-730418 J	8-1-49	2 3/4%	2-1-8-1	1,000	
H.O.L.C. M-641829 K	8-1-49	2 3/4%	2-1-8-1	1,000	
H.O.L.C. M-641830 L	8-1-49	2 3/4%	2-1-8-1	1,000	

Total Bonds \$4,000 \$ 4,121

Total Investments \$12,571

(A) At Southern Trust Co. Office for safekeeping.  
(B) In Safety Deposit Box at Church Street Branch of Broadway National Bank.

**FINANCIAL STATEMENT OF POSTGRADUATE INSTRUCTION COMMITTEE****—1937—****RECEIPTS**

January—	Contributors*	Tuition	Miscellaneous	Total
C.F.	\$4,162.50	\$420.00		\$5,332.50
V.U.	125.00			
U.T.	125.00			
Tenn.	500.00			

February—				
T.S.M.A.	375.00	215.00	\$2.90	592.90
March—				
C.F.	2,612.50	275.00		3,512.50
V.U.	125.00			
U.T.	125.00			
T.S.M.A.	375.00			

Total \$8,525.00 \$910.00 \$2.90 \$9,437.90

Receipts \$9,437.90  
Disbursements 5,909.35

Excess of Receipts over Disbursements \$3,528.55

Balance as of March 31, 1937 \$3 528.55

*Contributors	Pledged
C.F.—Commonwealth Fund	\$12,000.00
U.T.—University of Tennessee	500.00
V.U.—Vanderbilt University	500.00
Tenn.—Tennessee State Board of Health	1,500.00
T.S.M.A.—Tennessee State Medical Association	1,500.00

Total \$16,000.00



## DISBURSEMENTS

	<i>Salaries</i>	<i>Office Expense</i>	<i>Miscellaneous</i>	<i>Check Return</i>	<i>Total</i>
January -----	\$2,450.00	\$ 531.27	\$2.90	\$5.00	\$2,989.17
February -----	1,225.00	183.65			1,408.65
March -----	1,225.00	286.53			1,511.53
Total -----	\$4,900.00	\$1,001.45	\$2.90	\$5.00	\$5,909.35
Receipts -----					\$9,437.90
Disbursements -----					5,909.35
Excess of Receipts over Disbursements -----					\$3,528.55
Balance as of March 31, 1937 -----					\$3,528.55

	<i>Salaries</i>	<i>Office Expense</i>	<i>Miscellaneous</i>	<i>Total</i>
<i>January</i>				
Jas. R. Reinberger -----		\$ 50.00		\$ 50.00
Southern Bell Tel. Co. -----		10.50		10.50
L. B. Kibler -----	\$ 458.33			458.33
Raiford Rush -----	100.00			100.00
S. C. Toof & Co. -----		75.25		75.25
The Print Shop -----		88.78		88.78
Saxe Sign Co. -----		7.50		7.50
Bostitch, Inc. -----		10.00		10.00
E. H. Clark & Co. -----		3.40		3.40
Jno. R. Kinnie Co. -----		3.50		3.50
A. R. Taylor -----		24.15		24.15
Southern Bell Tel. Co. -----		6.88		6.88
Univ. of Tenn. (typewriter) -----		54.68		54.68
Univ. of Tenn. (typewriter) -----		89.10		89.10
Jas. R. Reinberger -----		50.00		50.00
McQuiddy Ptg. Co. -----		4.90		4.90
Frank E. Whitacre -----	300.00			300.00
W. M. Gupton, P.M. -----		5.00		5.00
Jas. R. Reinberger -----		28.42		28.42
Frank E. Whitacre -----	366.67			366.67
Frank E. Whitacre -----	666.67			666.67
L. W. Kibler -----	458.33			458.33
Raiford Rush -----	100.00			100.00
Southern Bell Tel. Co. -----		19.21	\$2.90	22.11
	\$2,450.00	\$531.27	\$2.90	
Credit Dr. G. A. Currie— check returned -----				5.00
Total -----				\$2,989.17

<i>February</i>				
Jno. R. Kinnie Co. -----	\$ 3.50			\$ 3.50
S. C. Toof & Co. -----	4.20			4.20
Miss. State Med. Assn. -----	175.00			175.00
McQuiddy Ptg. Co. -----	.95			.95
Frank E. Whitacre -----	\$ 666.66			666.66
L. W. Kibler -----	458.34			458.34
Raiford Rush -----	100.00			100.00
Total -----	\$1,225.00	\$183.65		\$1,408.65
<i>March</i>				
Southern Bell Tel. Co. -----	\$ 14.83			\$ 14.83
Memphis Photo Sup. Co. -----	117.65			117.65
Capitol Engraving Co. -----	17.65			17.65
Jno. Gerber Co. -----	3.08			3.08
S. C. Toof & Co. -----	83.32			83.32
J. R. Reinberger -----	50.00			50.00
Frank E. Whitacre -----	\$ 666.67			666.67
L. W. Kibler -----	458.33			458.33
Raiford Rush -----	100.00			100.00
Total -----	\$1,225.00	\$286.53		\$1,511.53

THE SPEAKER: We will now hear the report of the Board of Trustees. Dr. Hamilton is chairman.

Dr. Hamilton read the report of the Board of Trustees.

## REPORT OF THE BOARD OF TRUSTEES

Three meetings of the Board of Trustees were held during 1936. The first meeting was at the Gayosa Hotel in Memphis, April 16, 1936.

Those present were: C. M. Hamilton, chairman;

H. H. Shoulders, secretary; John B. Steele, A. F. Cooper, E. R. Zemp, and F. B. Bogart.

The following guests were also present: J. O. Manier, W. L. Williamson, and O. S. Warr.

Since it has become the duty of the trustees to make committee appointments, this transaction was performed at that time. Lists of these appointments have been published in the program and have appeared in each issue of the JOURNAL.

An accumulation of \$1,275 had accrued from payment on the principal of previous loans, and the Board of Trustees authorized the treasurer to make an investment approximating this amount. Ten \$100 H. O. L. C. bonds have been purchased at a cost of \$1,031.

According to recommendation by the House of Delegates, the Board of Trustees appropriated \$1,500 to be used in an educational project in co-operation with the Commonwealth Foundation, State Board of Health, Vanderbilt University, and University of Tennessee. The Committee on Post-graduate Instruction to be appointed at a later date was to be authorized to make a registration fee of some kind. Dr. Otis Warr, chairman of the Committee of Education, was instructed to proceed with plans of putting this movement into action.

The second meeting of the Board of Trustees was held in Room 508, Doctors Building, Nashville, Tennessee, April 30, 1936.

Those present were: C. M. Hamilton, chairman; H. H. Shoulders, secretary; F. B. Bogart, John Steele, and A. F. Cooper.

Also present by invitation were: W. L. Williamson, O. W. Hyman, O. S. Warr, J. R. Reinberger, John M. Lee, W. S. Leathers, and J. O. Manier.

The object of this meeting was to consider developments that had taken place in respect to an educational project contemplated by the Tennessee Medical Association in cooperation with the Commonwealth Foundation, the State Board of Health, Vanderbilt University, and the University of Tennessee, and to take such actions as was necessary to formulate plans and methods of operation.

The results of a conference with Dr. Evans and Mr. Smith of the Commonwealth Foundation on April 29 was explained in detail to those present. Dr. Evans had suggested that a committee composed of representatives from each of the participating agencies be formed. It was his opinion that this committee should be controlled by the State Medical Association, and he suggested that a committee of seven be established. Four of these members should represent the State Medical Association and be appointed by the Board of Trustees. One member should represent each of the following: State Board of Health, Vanderbilt University, and University of Tennessee. Following this suggestion, a committee composed of J. R. Reinberger, chairman, and O. S. Warr, Memphis; J. O. Manier, Nashville; F. B. Bogart, Chattanooga, representing Tennessee Medical Association; J. M. Lee, Nashville, of the State Board of Health; John

Youmans, Vanderbilt University; and O. W. Hyman, University of Tennessee, was established.

The secretary-editor was authorized to buy additional equipment for the headquarters office and to employ such additional help as was necessary to conduct the work of the office with dispatch.

The treasurer was authorized to reimburse Drs. Reinberger, Williamson, Warr, and Hyman for their expenses in attending this meeting.

The last meeting of the Board of Trustees was in Room 508, Doctors Building, Nashville, Tennessee, November 13, 1936.

Those present were: C. M. Hamilton, chairman; H. H. Shoulders, secretary; F. B. Bogart, John B. Steele, A. F. Cooper, and E. R. Zemp. W. L. Williamson, J. O. Manier, and L. W. Edwards were also present.

The secretary made a report embracing a statement of financial condition of the association at the end of the third quarter. His report also showed an increase in membership over the two previous years, notwithstanding an increase in dues. The investments of the association were also included in his report.

Within the interim between second and third meetings of the Board of Trustees a loan note of \$4,500 had become due and had been collected by the First Mortgage Company of Nashville. Your treasurer had the embarrassment of explaining to the Board of Trustees that this amount had been reinvested in three first mortgage lien notes without his knowledge and without the endorsement of the board. These notes were for \$1,400, \$1,500, and \$1,600 respectively. However, after a discussion of the description of these loans, they were ratified by the board.

Since more than \$4,000 was on deposit in the bank, the board authorized the treasurer to invest approximately \$3,000 in grade-A bonds. Three \$1,000 H. O. L. C. bonds were purchased for \$3,090.

The total amount of the investments of the association is as follows:

First mortgage lien notes against improved real estate in the following amounts: \$1,400, \$1,500, \$1,600, \$2,000, and \$2,025; United States Government bonds in the following amounts: Ten \$100 H. O. L. C. bonds and three \$1,000 H. O. L. C. bonds. The total is \$12,525.

The board authorized the treasurer to make payments to the Postgraduate Committee of Instructions in Obstetrics, quarterly, on requisition from the chairman of the committee.

Dr. John M. Lee, chairman of the State Board of Health, informed the Board of Trustees that Dr. W. C. Williams had worked in harmony and has been loyal to the Board of Health. At Dr. Lee's request, the Board of Trustees unanimously endorsed his reappointment as commissioner of health and instructed Dr. W. L. Williamson, president of the state association, to communicate with the governor-elect, Mr. Browning, advising him of this action.

The secretary was then authorized to publish in pamphlet form the constitution and by-laws as amended to date.

The chairman of the Legislative Committee was advised that the laws recently passed and put into effect governing the State Board of Health be retained without change. By cooperative vigilance and persistent effort these laws have been retained. The passage of amendments to the Medical Practice Act was considered another important function of the Legislative Committee. The sum of \$250 was allocated to the Legislative Committee for expenses.

The question of eligibility for the postgraduate course in obstetrics was raised. It was decided to leave the decision, as to whether nonmembers should be eligible or not, to the local societies.

Respectfully submitted,

C. M. HAMILTON, Chairman.

THE SPEAKER: Referred to Dr. Bryan's committee.

Mr. Secretary, we will hear from you.

The Secretary read his report.

#### REPORT OF THE SECRETARY-EDITOR FOR THE CALENDAR YEAR 1936

*To the House of Delegates of the  
Tennessee State Medical Association:*

I have the honor to submit herewith a brief summary of the activities of the headquarters office of the Tennessee State Medical Association for the calendar year 1936.

At the end of 1936 the membership of the association was 1,567.

At the end of 1935 the membership was 1,556.

At the end of 1934 the membership was 1,541.

At the end of 1933 the membership was 1,434.

It will be noted that the membership for the year 1936 was increased over the membership of the three preceding years. This increase took place notwithstanding the fact that the dues were increased by \$2.00 per year, effective January 1, 1936. It shows that this action on the part of the house did not adversely affect the membership as was feared by some.

The increased activities and responsibilities of organized medicine called for this increase in revenue. The membership has met the call in a wholehearted manner.

Insofar as I am concerned, this action is interpreted as a good indication of the virility and high intentions of the membership. We give charity, of course, but we must pay for what we get.

#### Component Societies

There were fifty-eight local societies active last year. There are still a number of component societies with a small membership.

The headquarters office has taken every step that can be taken within our limitations to encourage these smaller units to combine with others to form larger component units. We must not go beyond

the action of encouraging the membership to combine. We cannot force nor compel. As a matter of fact, the state association is an association of local component units. The headquarters of the association is not the master but, to the contrary, is the servant. However urgent we think combinations are, we believe it to be within the province of the local units to act or not act as they see fit.

It is believed that the postgraduate activities now going on will aid in convincing the smaller local units that such combinations are vital to the proper functioning of a component society, and to the proper functioning of the state.

### General Duties

Under the heading of general duties, it is proper to discuss, briefly, a few of the many activities that are engaged in, that cannot be covered fully in a report of this character.

First, the matter of keeping informed as to the developments which take place from time to time in various parts of the country tending to alter the form of medical practice in America and to force upon the public a form of medical practice and of living which is alien to our traditions.

From time to time we have endeavored to portray on the editorial pages of the JOURNAL something of our gleanings from various sources in order that our membership may be abreast of the times.

As you all know, there are a number of committees of the association now, and many of them are very active. Their activities are coordinated in such a way that there is no conflict, or at least a minimum of conflict. It is appropriate that the functions of the association be so distributed.

It has seemed to me that organized medicine is offering a more potent resistance to many of the influences which threaten it than was the case a short while back, but the dangers are not passed. The dangers are never completely passed. Eternal vigilance will be the price of success in the efforts that confront us.

The population of the United States is becoming more and more segregated into groups, and the groups are becoming more and more interested in political activities and political questions.

There is much agitation going on within many groups which can have no other purpose than that of undermining and destroying the philosophies of liberty that have been our guiding star. Organized medicine must continue to be honest, alert, and intelligent.

### Finances

An audit of the books of the association has been made by a certified public accountant. A report of this audit will be submitted to you by the treasurer.

Attention is called, briefly, to a few facts brought out in the audit.

First, the income of the association from dues amounted to \$9,338.50. The income from the same

source in 1935 was \$6,720.00. An increase of \$2,618.50 was experienced in 1936.

The income from advertising amounted to \$4,657.24, an increase of \$422.27 over the advertising income for the previous year.

As a result of these increases in revenue, the association was in financial position to undertake activities which were heretofore not possible.

The association has financed the organization of postgraduate work and is financing its proportionate part of the activities.

I like to think of the Tennessee State Medical Association as being composed of dignified professional men who are leaders in their respective communities. For our association to be in position to represent the profession as it should be represented it must be financed in such a way that it can be done with dignity. It is most gratifying to me to know that the membership feels likewise.

Mind you, no one has gone on a spending spree as a result of our improved financial condition. To the contrary, our reserve has been kept invested in sound securities, and we need to build our reserve just as high as we can build it as time goes along.

### The Journal

It is not necessary to report to you that the twelve issues of the JOURNAL were mailed on time. You are familiar with the content of these issues. It might interest you to know that we have received several complimentary references from other states.

### Charter

When the Social Security Act became effective, the first of this year, we set about determining whether or not the association was liable for the tax under its provisions. A ruling of the collector of internal revenue had been made that under certain conditions such associations are not liable for the tax. It was necessary to consult the provisions of our charter to determine whether we were liable or not liable. We had no charter in the office of the association and, insofar as I know, we have no charter in the headquarters of the association. Upon investigation, we found that the association was chartered by an act of the legislature in the year 1830. This charter expired by limitation in the year 1865. If a charter was ever issued subsequently, we do not find any record of it in the secretary of state's office, or in our own files. It is, therefore, appropriate for the house to consider the matter of obtaining a charter from the State of Tennessee in which will be set out the purposes, powers, etc., of this association. It is suggested that the Board of Trustees be authorized to do this. Since we could not demonstrate that the association was exempt from the payment of taxes, they have been paid in regular order.

It is regrettable to a degree that the activities of the headquarters office are not susceptible of portrayal by some statistical table.

The foregoing is intended to give you in as



brief a space as possible a fair conception of what goes on.

Most respectfully,

H. H. SHOULDERS, Secretary-Editor.

April 13, 1937.

THE SPEAKER: Here we have been operating since 1865 without a charter. I think we ought to look into it and take it up and remedy it because it may be very embarrassing to us some time in the future. That is a very interesting and enlightening report.

DR. V. L. LEWIS (Crossville): What is the advantage in having a charter? Tell us, Dr. Shoulders.

THE SECRETARY: There would be a very definite advantage in case of controversy, as to who has the custody of the funds. It could sue and it could be sued and it would have a legal standing before any body.

For instance when this matter arose the collector of internal revenue said, "What are the provisions in your charter?"

I said, "We will look it up." We looked it up and we could not find it.

All such organizations are chartered. We did have a charter which died. The original charter, passed by the legislature, provided that it should die an automatic death in 1865.

I wrote to Dr. Miller, if he knew anything about the charter, from his recollection and familiarity with the minutes, and he had no recollection and could not find any reference to anything; in the history that Hayman wrote, we could never find any reference. The office of the secretary of state was searched for records of a charter, but we had none.

DR. LEWIS: I move you, sir, that we authorize the Board of Trustees to take this matter up and give them full authority to investigate and act on the matter and, if they deem it advisable, to secure the proper charter.

DR. W. B. BURNS: Mr. Chairman, that comes under reports of officers. He is out of order.

THE SPEAKER: That is a very good suggestion and timely. We will take it up under the proper heading, Doctor.

We will take up reports of standing committees.

#### NOMINATING COMMITTEE ELECTED

DR. EVERETT: Mr. Speaker, I think you have overlooked the matter of your Nominating Committee which, for custom, has been elected the first thing on the convening of this house, to bring in the report later.

THE SPEAKER: That is very true. To do that, we will have to have a little recess.

Gentlemen, you understand about this Nominating Committee. You divide up into groups, Middle Tennessee, East Tennessee, and West Tennessee, and the delegates from each of those sections will elect three men from their section, and those nine men will constitute the Nominating Committee.

DR. EVERETT: No two of whom shall be from the same county.

THE SPEAKER: That is right. No two of whom shall be from the same county. We will recess for a few minutes, as long as necessary. Get your groups together and elect your Nominating Committee.

Recess for election of Nominating Committee.

THE SPEAKER: The Society will come to order. We will hear first from East Tennessee:

DR. HIRAM LAWS: For East Tennessee:

John Roberts, Kingston.

A. M. Patterson, Chattanooga.

M. S. Roberts, Knoxville.

DR. B. T. NOLEN: For Middle Tennessee the Committee is:

Joe Wright, Giles.

O. N. Bryan, Davidson.

D. B. Andrews, Maury.

DR. A. F. COOPER: For West Tennessee:

J. B. Stanford, Shelby County.

F. K. West, Fayette-Hardeman County.

W. L. Summers, Lake County.

THE SPEAKER: We will hear from Dr. H. H. Shoulders the report of the Committee on Scientific Work.

#### REPORT OF COMMITTEE ON SCIENTIFIC WORK

THE SECRETARY: As Chairman of the Committee on Scientific Work, we offer the program of the present assembly as evidence of our activity and as our report.

THE SPEAKER: I promised Dr. Edwards that I would take up tomorrow the report of the Committee on Public Policy and Legislation. He will be here in the morning. I think at this time we can stand the pain of not hearing from these committees to hear our president, Dr. Williamson. (Applause.)

President Williamson read his report.

#### REPORT OF DR. WILLIAMSON, PRESIDENT

*Mr. Speaker and Members of the House of Delegates:*

This report which I have for your consideration is largely an exposition of my personal opinion which may or may not make it of value.

These opinions were partly formed during the past year. I have devoted considerable time to the affairs of the society. Some of this time and travel might be considered meddling with the business of our very capable committeemen, but it was not so intended. I will mention some of my official visits during my term as president:

In May I received an invitation, as your president, from the secretary of the Mississippi State Association to attend their state meeting at Greenville. I was very graciously received and introduced. Also in May I attended the House of Delegates of the American Medical Association and

sat through every session of that House. In November I attended the Annual Conference of Secretaries of Constituent State Medical Associations in Chicago. The same month in Baltimore I attended a Conference of State Presidents of seventeen states composing the Southern Medical Association.

Within the state I attended the following meetings: I was at the West Tennessee Medical and Surgical Association, Jackson; Dyer, Lake, and Crockett County Medical Society, Reelfoot Lake; Tennessee Valley Medical Association and Postgraduate Assembly, Knoxville; Hamilton County Medical Society, Chattanooga; Joint Meeting, Thirteen Counties Medical Society, Shiloh National Park; First Tennessee District Meeting, Greeneville; Maternal Welfare Committee Meeting, Natural Bridge; Five Counties Medical Society, Waynesboro; Hardeman-Fayette County Medical Society, Bolivar, November 11 and December 11; Board of Trustees Meeting, Nashville; Postgraduate Obstetrical Program, Covington, Brownsville, Jackson, and Bolivar; Legislative Committee, Nashville, January 8 and February 28; Gibson County Medical Society, Trenton; Postgraduate Obstetrical Program, Covington, Brownsville, Selmer, and Bolivar; Tri-County Medical Society, McKenzie; Tri-County Medical Society, Henderson; Nashville Academy of Medicine, Nashville; and also addressed the Memphis and Shelby County Medical Society, Memphis, April 6—a total of twenty-nine meetings.

At most of these meetings I discussed with our members medical affairs. On these visits I have probably seen a majority of the members of our association. I have seen most of our councilors over the state and have been in communication with all of them. There is a keen interest and a co-operative spirit among them. All are anxious and willing to advance the best interests of our state society.

Another impression which I received by contact with laymen: That there has never been a time when more confidence has been placed in the specific statement of a physician than now. The public may want our services for nothing, but they seem convinced that they have a definite value.

In a letter from Surgeon-General Thomas Parran of the United States Public Health Service several months ago he requested a state committee be appointed. The object of this committee was to advise with the profession and the health department as to the best methods of handling the treatment of venereal diseases in this state. This is a social as well as a medical problem, and in the appointment of the committee this fact should be recognized. It seems to me this is a rather important committee, and for that reason I have not appointed it. It seemed wise to me to delay the appointment in order to consult the trustees about it before doing so. As a suggested committee for this work I quote the last sentence of Section 6,

Chapter VIII, of the By-Laws: "The House of Delegates directs the Liaison Committee to act in an advisory manner to the Board of Health as now constituted in the matter of formation of all policies."

There should be appointed a well-chosen committee on public policy or relations, separate from the Committee on Legislation. This committee has enough work. We should have a committee who will let the public know what the profession is doing. It now appears that all reduced mortality, morbidity, and medical progress is the result of public health work. The public must know that the profession is the origin of practically all medical progress. They now have no way to learn these facts. The press carries reports of municipal and government activities, but there is no report from our ranks.

The work of the trustees has been increased to such an extent and this work is of such great importance that I believe it is advisable to increase this board to two members from each grand division of the state, electing two trustees each year instead of one. The trustees should meet quarterly. The district councilors should meet with the trustees, at least semiannually. The most *careful* consideration should be given the selection of councilors. They have a most valuable function. Most of them appreciate this fact. Some do not.

I cannot stress too strongly the importance of capable councilors in the various districts. They should be encouraged to greater activity by more frequent meetings. Their contact with the men of the profession is so much closer than that with the state officials that the value of their services can be greatly increased. I hope that each delegate in the selection of his councilor will go over his district carefully and select a man whose active cooperation will be unquestioned.

The Hospital Committee has a heavy obligation. The hospitals are rapidly encroaching upon the practice of medicine. Their sales of medical services are increasing. As a lay group they are receiving an income from the services of the resident and nonresident staff.

There are hospitals admitting patients on charity services and collecting as much money as they can. These patients are cared for by interns and staff men without compensation to them, thereby forcibly impressing upon the patient that hospital services are of value and that physicians' services need not be paid for.

In the hospitals there is the threat of competition to private practice which should not be underestimated. If these lay institutions are not held under strict supervision, their encroachment on the practice of medicine will produce one of our greatest advances towards socialized medicine. Already many districts surrounding our medical centers have municipal and religious organizations as well as individuals, especially preachers, who send patients directly to hospitals for medical

services. Hospitals, not individual doctors, are receiving credit for services rendered.

I would strongly recommend that the Maternal Welfare Committee be continued with the requested personnel added. I would certainly urge that at least the chairman, Dr. Reinberger, be retained. His services have been invaluable. He should be praised for his efforts and urged to continue his work. The financial affairs and records are so kept and efficiently handled by this office that after a very few minutes of inquiry they show any detail of expenditure. It now appears evident there will be a surplus of funds left over from the contemplated first year's expenditure.

I further urge that the members of this committee meet wherever possible with Dr. Whitacre and that they address the assembled doctors, emphasizing the fact that this program is a project of the Tennessee State Medical Association. It belongs to them, and they should feel free to avail themselves of all possible services through our clinician who has been employed solely for their benefit.

This program, as you see, is the most valuable project you have ever undertaken. It is increasing the number of county societies. It is strengthening those already organized. The attendance will improve. The membership in the state society will increase. Foetal and maternal mortality and morbidity will decrease. The public will be greatly benefited. The association should have credit in the public mind, and not be informed by a bulletin from Washington or elsewhere that the United States Public Health or some other public service has shown such results from their efforts.

Other programs are already wanted. They should *not* be instituted by any one but you. This method is eminently successful. There are other applicants for this work in the field, but I know this method is appealing to the doctors.

The unusual amount of work done by our Legislative Committee should be called to your attention. During this session of the legislature they have apparently been constantly on the alert, and necessarily at a great sacrifice to their personal interest and private practice. However, some members of this committee, in an effort to obtain a law on basic sciences, have been willing to approve the appointment of an osteopath on the board with four medical men. It is true there would be a control of the board by medical men. However, this seems to me an endorsement of an osteopath which should *not* come from the Legislative Committee of our state medical association. Such appointments, with a mixed board of examiners, have proven unsatisfactory in other states. It is my opinion that we should insist on the members of this board coming from the medical profession, or professors from state institutions, who will give a sufficiently rigid examination. The board, composed of members, not practicing physicians, selected from institutions supported, or partly sup-

ported, by appropriations from the state's funds, should not be objectionable to any legislator and should be agreeable to anyone desiring to practice the healing art in Tennessee. A nonsectarian board is recommended by the legal department of the American Medical Association.

The House of Delegates should go on record as directing our Legislative Committee to keep advised as far as possible as to prospective candidates for the Tennessee legislature and for governor. Through the councilors, county secretaries, and members of the association, each man should be interviewed before election, and his views on probable legislation in the interest of the medical profession obtained, if possible, in writing. This was very successfully accomplished a few years past and should be a constant endeavor in the future.

If not already provided, someone should be given the definite duty of watching for the time of expiration of the appointments of members of the Medical Board of Examiners and the State Board of Health. This obligation should be accepted by someone who will keep the House of Delegates informed so that sufficient time may be had to supply suitable men on these boards if changes are to be made.

Further, if not already provided, employees of the state association working in the field in the interests of this society should be covered by liability insurance for the protection of the association in case of accidents.

Sunday I had the pleasure of visiting with our friend and immediate past president, Dr. John B. Steele, in Chattanooga. As you know, he has been confined to his bed for three months from very serious automobile injuries. I bring a message from *him to you*, all of which I very *strongly endorse* and very earnestly *urge*. Which is, in substance, as follows:

Since the affairs of medicine have been so broadly expanded, and the duties of officers so greatly increased, we believe this state should have a capable man whose *sole* duty would be the furtherance of the affairs and interests of the state medical association.

At this time our state needs someone constantly available who can attend any medical or lay meeting at which medical problems may be presented or discussed in any part of the state. No practicing physician can give the amount of time the office properly requires.

The following state medical associations have full-time secretaries: California, Colorado, Indiana, Kansas, Maine, Massachusetts, Minnesota, Missouri, Ohio, Oregon, Texas, Virginia, West Virginia, and Wisconsin. The following states have full-time laymen as secretaries: Colorado, Indiana, Kansas, Maine, Ohio, Wisconsin, Virginia, and West Virginia.

After considerable investigation, we find that this arrangement adds to efficiency and gives much



more satisfactory results. Our income has already been increased by an increase in dues. A greater increase in advertising can be obtained and will follow the efforts of an all-time man. Increased efficiency by a capable executive secretary will increase the income to the society more than the added amount for his salary. We would like to recommend strongly and to urge that *this* House of Delegates in session in Knoxville take the action necessary to institute such a measure at once.

This was first recommended by Dr. Steele last year. My contacts over the state have convinced me that such action is imperative. I will say, as Dr. Steele said, "This is absolutely not on personal grounds because I know we have a very capable man in the office of editor who contacts the physicians wherever he can get to them. He is a capable man. I am not questioning that for one second. That is not included in this at all. But because I believe it is the best thing for the state association." We should have a capable man, whose *only* business should be the best interests of the state association.

We have an efficient editor, and if these two offices were to be separated, retaining the editor, with an all-time secretary, who can keep in constant touch with active councilors over the state, then we will be in position to get more prompt action in handling matters, which may develop, of general interest to the members of our state organization.

This has been a strenuous year for me in many ways. I believe I have made many friends in the state, and I hope very sincerely, no enemies. It has been a very pleasant year. I have enjoyed the work. I am very grateful to the many members who have done so much to advance the interests of our state association. I believe we have made progress. It will give me pleasure to serve our future officers in any and every way I can.

**THE SPEAKER:** Liaison Committee. Is Dr. Dixon present?

#### LIAISON COMMITTEE

**DR. W. C. DIXON:** Mr. Speaker and Gentlemen: The Liaison Committee, as you know, was charged with the duty of acting as a connecting link between the State Board of Health and the State Medical Association. Since we have a State Board of Health that is functioning in a most acceptable way, we have had practically nothing to do. During the past year no matter has arisen and nothing has been brought to our attention that required any action on our part. Consequently, we have no report, aside from what I have said. (Applause.)

**THE SPEAKER:** State Tuberculosis Hospital Commission, Dr. Rude. (Absent.) Hospital Committee, Dr. Pickens.

Dr. Pickens read his report.

#### REPORT OF HOSPITAL COMMITTEE

Last year your committee brought three things to your attention—

1. Group hospitalization.
2. Individual hospital insurance.
3. Hospitals practicing medicine.

Group hospitalization and individual hospital insurance no doubt are with us to stay, but we must never agree to hospitals practicing medicine, without a determined and united opposition, and it is our business to see that the furnishing of medical service is not included in the sale of insured hospital accommodations. As might be expected, certain hospitals in Memphis did include under the insurance plan routine laboratory, reduced X-ray charges, blood pressure reading, and free urinalysis once a year for members of group. Through united effort of the Shelby County Medical Society these things have been corrected and omitted from the group hospital service.

We feel the medical profession of the state is indebted to the Shelby County Medical Society for its stand and accomplishments. It behooves all of us to be on the alert and discover and correct such practices in the incipency. In our opinion such irregularities can best be corrected by the society in whose midst they occur. It has been reported that some hospitals have admitted obstetrical cases for a flat rate and have interns do the work. These cases must be investigated carefully as to their ability to pay a doctor. No doubt many patients are treated in our charity clinics and admitted to hospitals for operations and medical services who are able to pay a reasonable fee. A united effort on the part of the medical profession and a proper supervised social service checkup should correct a great part of this abuse. New York State has a law making it a crime punishable by a heavy fine to apply for free treatment when able to pay for same. Such laws require special legislation and should not be undertaken blindly at this time. Hospitals were designed to be the workshop of the doctors, and when it is discovered that one is endeavoring to adopt and pursue policies for the purpose of making the hospital the master, such policies must be corrected.

D. R. PICKENS, Chairman, Nashville.  
E. H. BAIRD, Dyersburg.  
H. QUIGGS FLETCHER, Chattanooga.  
KYLE COPENHAVER, Knoxville.  
H. B. EVERETT, Memphis.  
LEE GIBSON, Johnson City.

**THE SPEAKER:** Committee on Insurance, Dr. Cooper of Memphis.

#### REPORT OF COMMITTEE ON INSURANCE

**DR. A. F. COOPER:** Mr. Speaker, I have not much to report. Mr. Edwards representing the National Casualty Company, with whom we have this group policy, accident, health, and illness coverage, has done some work over the state. He has not done much work over the state for the reason that he has been doing all the work himself. That is unfortunate for the members of this society, and yet he cannot be blamed for it, because

it is difficult to employ agents to work for the commission which they will earn from this small premium that is paid for this insurance.

Mr. Edwards will be glad to communicate with any of you who would like to have any information about this policy and would be very glad indeed to come to your office and explain it to you and write it for you.

It is a very excellent policy and, aside from the Shelby County policy, is the only one of its kind in existence. It is the only policy, of which I know, which has not one single exemption in it except attempted suicide, whether sane or insane, and that is included in life insurance policies up to one or two years. There is no fine print, and no misconstruction of words to be put upon anything that is said in it.

On April 7 the company wrote me that they had ninety-seven members insured and had paid out \$308 in claims, which is a very satisfactory experience for them.

THE SPEAKER: What is the company?

DR. COOPER: The National Casualty of Detroit. Since that time he has written several more. I think there are now about 110 insured under the policy.

Our experience in Memphis with this same company and with this same type of policy has been thoroughly satisfactory. We haven't that many insured with them; in fact, only sixty-one, yet the company has paid something over \$2,000 in claims to our members and has paid them very promptly. The experience of our members has been thoroughly satisfactory with them from every standpoint.

I have had several letters referred to me by Dr. Shoulders which came to his desk, from men in various places over the state, who did not understand why they were slow in receiving their certificates or their policies. That is not necessarily the fault of the agent or the fault of the company. All these applications are confidentially and commercially investigated. Sometimes that takes quite a little while to do; other times it takes hardly no time at all. It may be that all they have to do is to run through their cabinet or clearinghouse, as you might call it, and find the information they want as to that particular risk, in a very few minutes.

Then, again, if they have to write to some individual in a certain town to make the inspection for them, that takes longer. That is usually the reason for the delay.

I hope that all of our members will try to avail themselves of it, but in the event you are disabled in any way already, you will be unable to get the policy, because it is such a cheap rate they have to be very careful and because they have no actuarial experience to back them up in it, aside from our group at Memphis, which expired in October, for the first year, and which they renewed voluntarily for another year. Of course,

this is all a one-year renewable term plan; all group insurance is.

I don't think of anything else, Mr. Chairman. If anybody would like to ask questions about it, and I can answer them, I will be glad to do it.

DR. W. B. BURNS: What is the age limit?

DR. COOPER: The age limit is sixty-five years.

THE SPEAKER: The Committee on Medical Defense.

Dr. S. R. Miller read the report.

## REPORT OF MEDICAL DEFENSE COMMITTEE

*House of Delegates of the Tennessee State Medical Association, Gentlemen:*

The Medical Defense Committee submits our twenty-third annual report.

Our last report showed only one suit that the committee was defending.

There were two others that were being defended by insurance companies which were perfectly capable, but still they were entitled to our defense, if needed. Dr. Everett tells me that those two suits are still pending; that is, they have had mistrials and one non-suit, but they are still pending. We are only defending one suit.

We have been ready at each docket to try this suit, but it has been postponed each time by the plaintiff's counsel, but the last time he promised to be ready for trial at the next term of that court in June. I will say the reason for postponement was he couldn't get any medical witness on his side. All the medical witnesses turned out to be witnesses for the defense. We hope to close our work at that time. A nonsuit was taken at an early trial, but the suit was refiled within the statutory time. Another nonsuit may be taken, if we can force trial in June.

The treasurer's report will show the balance of \$486.15 to the credit of the Defense Committee. Attorney fee in this suit, and some accumulated small expenses, will complete all our expense.

S. R. MILLER, Chairman.

H. B. EVERETT.

THE SPEAKER: Advisory Committee to the Woman's Auxiliary, Dr. W. P. Wood, Chairman.

DR. W. P. WOOD: Mr. Speaker, I do not know much about this Medical Auxiliary. I could not get much out of the ladies. But this is the report that they gave me.

Dr. Wood read his report.

## REPORT OF ADVISORY COMMITTEE OF WOMAN'S AUXILIARY

The national president of the Woman's Auxiliary advised the state president three things that she wished to be carried out in the state organization. First: the promotion of the magazine *Hygeia*; second, education not only in matters in medical economics and health but along general lines;

third, social side of organization. Following this the state president sent out a questionnaire emphasizing the following points:

1. Health education.
2. *Hygeia* subscription.
3. A. M. A. radio programs.
4. Public relations.
5. Philanthropy.
6. Social.

The different societies throughout the state have endeavored to carry out these instructions. They report a very successful year, meetings well attended, and membership increasing, and that they have had a hearty cooperation with the doctors throughout the state in carrying out the program.

W. P. WOOD, Chairman.

L. W. EDWARDS.

### MEMOIRS COMMITTEE

THE SPEAKER: Is Dr. R. B. Wood present? That is the Committee on Education. (Absent.) At this time, would it not be advisable for this House of Delegates to pass a resolution on the death of our distinguished and beloved Dr. Warr?

THE SECRETARY: Mr. President, I move that the Speaker be authorized to appoint a committee to draw up a resolution on the death of Dr. Warr and present it for consideration at the next meeting?

THE SPEAKER: Do you make that as a formal motion?

THE SECRETARY: Yes.

DR. S. R. MILLER: I second the motion.

DR. W. B. BURNS: Mr. Chairman, haven't you a Memoirs Committee?

THE SPEAKER: I don't think we have; we used to have one.

The question was put to a vote and carried.

THE SPEAKER: I will appoint that committee a little later.

DR. COOPER: Joe Mitchell died.

MEMBER: W. M. Johnson of Sparta died in February.

THE SPEAKER: And Dr. Duncan Eve. I wish you would turn in to the Secretary the names of any members who have died during the last year, because we do not want to slight anyone.

Dr. Wood is not here, so we will skip his committee. The reason I mentioned Dr. Warr particularly is he was chairman of the Committee on Education.

### REPORT OF COMMITTEE ON MATERNAL WELFARE

We will next have the report of the Committee on Maternal Welfare. Dr. J. R. Reinberger.

DR. J. R. REINBERGER: Mr. Chairman, I am more or less combining the report of the Maternal Welfare Committee with the Committee on Postgraduate Instruction in Obstetrics, if that is agreeable, because most of the duties of the Maternal Welfare Committee have been working more or less hand in hand with the Committee on Postgraduate Instruction.

There is one recommendation which I haven't had an opportunity to write up. I just had a meeting of the Committee on Maternal Welfare, and the committee thought that the number of men should be increased, so that more efficient work could be carried on individually by various men throughout the state.

The committee recommends that

L. C. Harris, Lawrenceburg

John Powers, Jackson

C. W. Friberg, Johnson City

D. T. Holland, Newbern

be added to the regular Committee on Maternal Welfare.

I might say it was the intention last year to have these men added but through some reason they were not added, and they have been working more or less informally.

I have nothing further on Maternal Welfare. I have here the report on Postgraduate Instruction, if you would like to hear it now, or I will put it off until later.

THE SPEAKER: How long is it?

DR. REINBERGER: It is quite a document. The committee felt that there was such an expenditure of funds, and since it was not generally appreciated as to what this committee was trying to do, they ought to make a more or less detailed report for the first quarter.

DR. BATTLE MALONE: That seems to be quite a lengthy document. I would like to move that this be published in the JOURNAL instead of being read, so all of them can have leisure to digest it fully.

DR. W. B. BURNS: I second that motion.

The question was put to a vote and carried.

THE SPEAKER: Doctor, that is without any discourtesy to you, and it gives the members a better opportunity to study the report. We will have it published in the JOURNAL.

### REPORT OF COMMITTEE ON POSTGRADUATE INSTRUCTION IN OBSTETRICS

The Advisory Committee on Postgraduate Instruction in Obstetrics met for its first time in Dr. H. H. Shoulders' office, Doctors Building, Nashville, Tennessee, on April 30, 1936. The committee consisted of the following:

Dr. O. S. Warr, general chairman, State Education Committee;

Dr. Franklin B. Bogart, trustee, State Medical Association;



Dr. J. O. Manier, past president, State Medical Association;

Dr. J. M. Lee, State Board of Health;

Dr. John B. Youmans, Vanderbilt University;

Dr. O. W. Hyman, University of Tennessee;

Dr. James R. Reinberger, State Maternal Welfare Committee.

The Advisory Committee went into session, and on motion of Dr. Franklin B. Bogart, with proper second, Dr. James R. Reinberger was elected chairman with the unanimous approval of the committee. Dr. Reinberger, upon motion of Dr. Bogart, with proper second, was directed to draw up plans and submit to the Commonwealth Fund with the request for funds to supplement the funds of the participating agencies in Tennessee to conduct a postgraduate course in obstetrics in Tennessee. A budget of \$15,000 was voted as the necessary amount to carry out this educational program, \$8,000 of which was to go for the salary of an instructor, a salary of \$3,500 plus \$1,500 traveling expenses for a field organizer, and a salary of \$1,200 for an office secretary. Dr. Manier made a motion that if this grant was received favorably by the Commonwealth Fund the chairman accumulate data as to the personnel available, and call a meeting.

On July 28, 1936, at Natural Bridge, Waynesboro, Tennessee, the committee met for the second time, with visitors, Dr. W. L. Williamson, Dr. H. H. Shoulders, Dr. H. B. Everett, and Dr. A. F. Cooper present. The chairman reported that the Commonwealth Fund would supply the necessary funds, i.e., \$12,000 of the \$16,000 a year for two years. The balance of the budget to be supplied by the Tennessee State Medical Association, \$1,500; Tennessee State Board of Health, \$1,500; Vanderbilt University, \$500; and the University of Tennessee, \$500. The Commonwealth Fund was willing to supplement the funds only after the proper personnel was selected and had their approval. The selection of the personnel was discussed; but as there was no unanimity of opinion relative to a clinician, it was suggested that the chairman communicate with all medical centers throughout the United States relative to desirable applicants. The treasurer of the Tennessee State Medical Association was voted unanimously as the proper person to disburse the funds upon the approval of the chairman of the committee.

Your chairman communicated with all of these medical centers throughout the United States, and he asked each committeeman to select from submitted credentials the four most outstanding applicants. The trustees of the Tennessee State Medical Association already had agreed to pay expenses for personal interview for the four best chosen, not only for their scholastic credentials, but also on account of the necessity of securing an applicant with age, maturity of decisions, diplomacy, and ability to transpose highly scientific medical knowledge to a language of the practicing physi-

cian. Your committee unanimously selected the four applicants.

Your chairman called a meeting for November 8, 1936, Hotel Peabody, for the selection of a clinician. Dr. Frank W. Whitacre, assistant professor of obstetrics, University of Chicago, was elected clinical instructor. Mr. L. B. Kibler, formerly director of the postgraduate extension course, University of Oklahoma, was likewise interviewed. The committee agreed that since Mr. Kibler's salary was approximately the same as he was receiving and as he had to move his family from Oklahoma City, and since he was such a valuable man, it would be advisable to increase his salary \$500 per year. The trustees of the Tennessee State Medical Association was to advance this additional appropriation in a form of a loan to the Committee on Postgraduate Instruction in Obstetrics, but to be repaid through the fees from physicians receiving instructions. The salary of Mr. Kibler was then raised to \$5,500. In an effort to let all physicians attend this course and also make them appreciate the value, a registration fee of five dollars was voted.

The office of the Committee on Postgraduate Instruction was discussed. Memphis was decided as the logical place, in that it was necessary for the chairman to supervise its activities. The University of Tennessee graciously offered office space for this office without charge, which was accepted. The Commonwealth Fund was notified that the proper personnel was secured, and the office was opened December 1, 1936, at 874 Union Avenue, Memphis, Tennessee.

Miss Raiford Rush was selected as office secretary and began her duties November 25, in preparation for the opening on December 1, 1936. Through the kindness and generosity of several Memphis organizations, most of the office furniture, files, etc., was donated to the committee. Mr. L. B. Kibler, field organizer, arrived shortly after the opening of the office to make plans for the first circuit. Actual teaching to begin January 1, 1937. Dr. Frank W. Whitacre was permitted to remain in Chicago on salary to prepare his lectures, because of the facilities not available in Memphis. Plans were completed for postgraduate instructions throughout the state. The state was divided geographically into ten teaching circuits with ten weeks of instructions allotted each circuit. This required two years to cover the entire state. Five centers for instructions of each circuit were selected as a method of choice so that five of the same lectures could be given each week for ten weeks. This method of instruction permitted physicians to attend the course without being a burden to their practice and at the same time gave them an opportunity to receive any lecture they had missed at home by attending the same lecture at another point in the circuit.

#### Organization of First Circuit

The location of the first circuit was made in the

southwest counties of Tennessee, omitting Shelby County. Committee members believed this expedient because the early organization could then be closely supervised by the committee chairman and several of the members. Shelby County was omitted in order that no feeling among the medical profession throughout the state would exist that the postgraduate instruction was first being given for the benefit of the doctors located in one of our major cities. It was contemplated Memphis could be included in a later circuit in West Tennessee or in a series of night lectures covering a period of two weeks. The first counties selected therefore were Tipton, Haywood, Madison, Chester, Fayette, Hardeman, and McNairy. Although Henderson County was not included, all the active physicians, in spite of this, insisted on entering the course at Jackson.

The teaching centers chosen were Covington, Brownsville, Jackson, Selmer, and Bolivar. In other words, five teaching centers were chosen, and doctors from eight counties entered the course in these centers. One exception exists, for there were five doctors attended from Ripley (Lauderdale County).

The first announcement letter, inviting the doctors' attention to the action of the House of Delegates of the Tennessee State Medical Association, and outlining the method of instruction by the circuit plan, named potential teaching centers and had enclosed an enrollment card which asked for the enrollment in advance of the opening of the course with the full fee attached. An outline of the course of ten lectures also was included. Letters were sent to the secretaries of the county medical societies of that area and they were urged to have our field director appear before their next regular meeting or, if such regular meeting was not to be held soon, to call a special meeting that plans of the course might be explained. Three county societies called special meetings and a considerable number of doctors were enrolled and paid the fee for the course in these meetings. In the rest of the territory, a few enrollments were taken by mail and the balance were solicited by actual calls upon the doctors in all towns in the territory. Society secretaries and directors of full-time county health units assisted our field director in this solicitation and in advising the location of active practitioners and those ethical and eligible to take the course. Lecture halls were arranged, clinic chairmen appointed, and the day, the hour, and the teaching center were mutually agreed upon by our field director during field trips among the officers of the county societies. (Copies of the announcement letters with enclosures were attached to this report.)

The number of paid enrollments of doctors in the first circuit totaled eighty-nine. (One physician, whose economic status from reliable sources justified it, was given the course gratis.)

Press announcements were placed in all county

newspapers, either daily or weekly, in the territory. The Memphis newspapers also carried liberal news items regarding the instructor and the plan of the whole program. Sample copies of these are also attached. They were prepared by your committee chairman and the field director. The press was liberal with news items about this course and gave most of them front-page display. These items were all written, and the editors, with one or two exceptions, never violated our trust and printed these exactly as written.

A map showing the highway connections over the first circuit is attached, and the centers are marked. A map showing the future circuits covering the entire two years and outlined by counties, designed to cover the state by districts, is also attached. This districting of the state insures that a teaching center will be placed within driving distance by automobile of every practicing physician in the state of Tennessee.

Repeating again, the number of doctors taking the course in the first circuit was ninety. The total number of doctors in the area was approximately 181. It should be borne in mind that some doctors who did not take the course in the first circuit are now inquiring what the next nearest teaching center will be and whether they will be permitted to drive to centers in adjacent counties when the course is next given in West Tennessee. In this first circuit, doctors have driven from ten to forty-five miles to the lectures. In the second circuit, now functioning, we have several doctors driving seventy and seventy-two miles, making a total of 144 miles round trip once a week for ten weeks. Bear in mind that ten of these trips over the life of a course call for the doctor driving 1,440 miles during the ten weeks. I mention this fact to show you the very keen interest that physicians are manifesting in this postgraduate program of instruction.

The second circuit now functioning was set up and organized in the same manner and includes the counties of Hardin, Decatur, Perry, Hickman, Dickson, Lewis, Wayne, Lawrence, Giles, and Lincoln. It includes the teaching centers of Centerville, Fayetteville, Pulaski, Waynesboro, and Jackson, the latter where a group of twenty-one negro physicians are assembled from Jackson and north-west Tennessee (half of the lectures of the Centerville group are being given in Dickson). A total of 103 doctors at the present writing have come into the second circuit course. The second circuit will close the last week of May. The third is now being organized in the counties of extreme north-east Tennessee. These are the counties of Hancock, Hawkins, Greene, Sullivan, Washington, Unicoi, Carter, and Johnson.

Summarizing, we have had an approximate total of 192 doctors who have entered the courses in the first two circuits, covering eighteen counties and ten teaching centers.



### Method of Instruction

*The instructor's outline* includes ten lectures in obstetrics (see copy of outline attached) with five teaching centers in a circuit and the instructor giving one of his lectures over a circuit each week. Thus it is readily seen that it requires ten weeks to give his complete course of ten lectures in each center.

*The lecture sessions* include, first, the instructor's didactic lecture of about one hour, followed customarily by a demonstration, either with a manikin, with motion pictures, lantern slides, female pelvic skeleton with infant skull, etc. After a question and discussion period, a dry clinic over one or more patients is held. This clinic usually is conducted with careful routine examination including history taking by the instructor with those points stressed in examination of the patient which have been discussed in the didactic lecture of that week. If a course of treatment is outlined, the same is carried out by the local doctor who presents the patient. If the case is one that presents an interesting end result, frequently the instructor asks the patient to report back to the clinic for the purpose of having the group watch the results of the prescribed treatment. Occasionally definite diagnosis is impossible due to the lack of necessary laboratory tests. In such instances the instructor points out the necessity for such, the local doctor usually secures the necessary tests and the results are assembled, and the patient often is presented the second time for the following week's clinic for final diagnosis. The clinics have therefore offered a very practical instructional part of the program in the course. At least this is the report of the doctors taking the courses of Dr. Whitacre.

It can readily be seen that the didactic lectures with demonstrations and dry clinics easily occupy a full two-hour period, or oftentimes longer, each week in each center. A minimum of twenty hours' instruction in obstetrics is therefore the result to each group.

*The equipment used* has been largely furnished by the committee and the instructor. Lecture halls, of course, were arranged by the field director without cost. These have been jointly secured by the local county society secretaries and the field director. Chairs, tables, electric current, adequate heat, and light were furnished. The use of public lecture halls as a meeting place has been found preferable to private offices or hospitals. The equipment of the instructor provided by the committee has been a manikin, purchased from the Mississippi State Medical Association after the completion of their two-year program of postgraduate obstetrics in that state. As a used manikin, this was purchased for \$175. The original cost was approximately \$400. The committee purchased for the instructor a sixteen millimeter Eastman movie projector and a screen. This

was new equipment. The projector was purchased at a cost of \$81.20 and the screen at \$12, total approximately \$93.20. Dr. Whitacre, the instructor, chose for use with his opening lecture on prenatal care two reels of a very practical prenatal film prepared by Dr. P. E. Thornhill of Norfolk, Virginia. Copies of these films were made by the committee at a total cost of \$56.41. These will be used over nine circuits during a period of two years, as will all the teaching equipment. Some six or eight other obstetrical films covering different subjects have been secured for transportation charges only for approximately ninety cents a week from the Chicago Lying-In Hospital where Dr. Whitacre was a member of the clinic staff. The Tennessee State Association is indebted to Dr. Joseph DeLee for this fine contribution to the postgraduate teaching of this association in Tennessee. The instructor has, in addition, secured at his own expense valuable slides of recent research which he accomplished, before coming to Tennessee, at the Chicago Lying-In. Towels, sheets, and rubber gloves have also been furnished by the committee. Forceps, syringes, and other equipment costing approximately \$100 have been furnished by the instructor.

### Written Lectures

*The committee has prepared lecture books*, which contain in abstracted form all the ten lectures. The committee requested the instructor, Dr. Whitacre, to reduce his lectures to writing and to include all diagnostic points or symptoms, as well as prescriptions and treatment formulas referred to in his lectures. These lectures were mimeographed by our committee office and neatly bound in one volume of 190 pages. These books are being handed out after the last lecture of each circuit to all enrolled doctors who wish them. This has avoided the necessity of the doctors taking detailed notes. Many insist it has been years since they have taken lecture notes in medical college and they had not only gotten out of the habit, but find that it materially detracts from their giving their best attention to the instructor's lectures. These books have been prepared only in sufficient number to hand out to those who are actually taking Dr. Whitacre's course. To furnish all doctors in Tennessee, totaling approximately 3,000, with such lecture books would be prohibitive in cost. For this reason alone the committee has refused these lectures to any except members of the postgraduate group.

*The patients for the clinics*, as indicated above, have come from the doctor's practice of those who have entered the courses. A clinic chairman has been appointed in each teaching center whose duty it is to be sure that one or more patients are secured for each clinic following the lecture each week. Members of the groups who have a patient they wish to submit in the clinics telephone or



notify the clinic chairman. Thus the embarrassment of having too many patients is avoided, also the assurance that one or more patients are actually provided comes by reason of one responsible doctor acting as clinic chairman. The field director has customarily asked the local society officer to appoint or select these chairmen, requesting only that those be selected who are interested in obstetrics and who are actually taking the course and have enrolled prior to the first lecture.

*Free consultations* by the instructor made available by the committee to members of the postgraduate groups are centralized each week, also in the hands of the clinic chairmen. Doctors who have patients in their offices and local hospitals whom they wish the instructor to see in personal consultation as a personal teaching benefit for them, merely notify the clinic chairman, and the instructor, upon his arrival each week in the center, secures these requests of local doctors and spends as much time as possible rendering personal assistance to the local doctors over their cases. Some of these private patients and consultations have unearthed valuable material for the dry clinics, and at the instructor's request have later been presented in the clinics for the benefit of the entire group.

*Lay talks* by the instructor have been encouraged through the local county society officers by the field director at the request of the committee. At the present writing, Dr. Whitacre has given six lay lectures over the first circuit before a total of 640 laymen. The chief subject of these talks has been: "Prenatal Care as It Affects the American Home." In these talks, Dr. Whitacre has boldly and in no uncertain terms urged fathers, mothers, and husbands to consider the importance of early prenatal care and that American men and women give their local doctors a chance to give them better obstetrical care. The instructor can do this because he has no private practice in that community and the laity are aware of this and therefore he can talk plainly. Such plain talk on the part of any local doctors would immediately call from some of the laity accusations that local doctors were "appealing for business." The instructor has prepared postal card reports, and these have been mailed to the office showing all lay talks, the approximate number in these audiences, and these will be kept on file and formulate the records of the committee for the entire two-year period. The sum total of these field reports of the instructor by the end of the two years, showing the number that have been made, with the total number of laity and kinds of organizations given this message, is likely to present an interesting "picture," by way of practical results, in maternal welfare effort and productive of definite results. In making lay talks to women's clubs, P.-T. A., local civic clubs, and a few county so-

cieties, together with the lectures for the regular course in the circuit, the instructor has traveled a total of 12,000 miles in the first circuit. In the travel for the organization of the first two circuits, together with individual trips to meet with county medical societies, over this program, plus two and three tours over the circuits with the instructor, the field director has traveled a total of 7,500 miles.

### Organization of Second Circuit

The second circuit territory was chosen among the southern tier of counties leading eastward from the first circuit. The committee believed it would be helpful by reason of winter weather and make for better road conditions. Further it proved to be a choice of good judgment for the reason that the Ohio and Mississippi Valley floods occurred during the last half of the first circuit and during the organization of the second circuit. Had northern or northwestern Tennessee counties, such as Lake, Obion, Dyer, etc., been included in either of the first two circuits, the flood situation would have been a definite handicap for the travel of the doctors who were members of the postgraduate groups.

But the second circuit included an area, much of which is a less fertile agricultural area of our state. From a population standpoint, this territory is also more sparsely settled, consequently the doctor population of many of these counties is small. Several counties have only two, three, or four doctors residing and practicing in the entire county. In this area also is included our well-known Five-County Society. Fortunately, the latter is a very active organization, and practically all of the doctors in these five counties of Hardin, Wayne, Perry, Lewis, and Lawrence are members of their Five-County Society and entered into the course. The counties included in this circuit are: Decatur, Perry, Dickson, Hickman, Lewis, Hardin, Wayne, Lawrence, Giles, and Lincoln—a total of ten.

The centers established were: Centerville, Dickson, Fayetteville, Pulaski, and Waynesboro. A fifth center, i. e., Jackson, was included for a colored group of twenty-one doctors. Colored doctors of all northwest Tennessee counties are included in this postgraduate group at Lane College in the city of Jackson. This group does not include the colored physicians from Memphis or Shelby County. (It is proposed later to give this course to colored physicians of Memphis if time permits.) As previously stated in this report, 103 doctors have come into the course and are now taking the postgraduate instruction in these five centers of the second circuit. At first it was not contemplated to include Dickson County, but because there were only four active physicians in Hickman County who very much wanted the course and because of geographical distance and factors of terrain, it was almost necessary that they take it in this

second circuit or pass the opportunity by on account of the long distance in travel necessary in any future circuit; and since Hickman County during past years had joint society meetings with Dickson County, agreement was reached to give half of the lectures in the course in the county seat of Dickson, and the other five lectures in the county seat of Centerville. Thus is found the reason for the so-called Centerville-Dickson center.

*Summer circuits* have been planned in the mountains of East Tennessee. The committee felt that two such circuits held in the mountain section would avoid having doctors assemble during the heat of the summer months in other warm areas for these teaching groups. Also it was felt that the full time of the instructor could be utilized during the summer months and the program be made continuous if advantage was taken of the cool areas of the East Tennessee mountains. Therefore, circuit No. 3 has been tentatively plotted on the map to include the counties of Hancock, Hawkins, Greene, Sullivan, Washington, Unicoi, Carter, and Johnson, with the possibility of teaching centers at Kingsport, Bristol, Johnson City, and Greeneville, or Mountain City. The field director at the present writing has just released the announcement letters to this area and commenced his first field organization. If the plans carry as

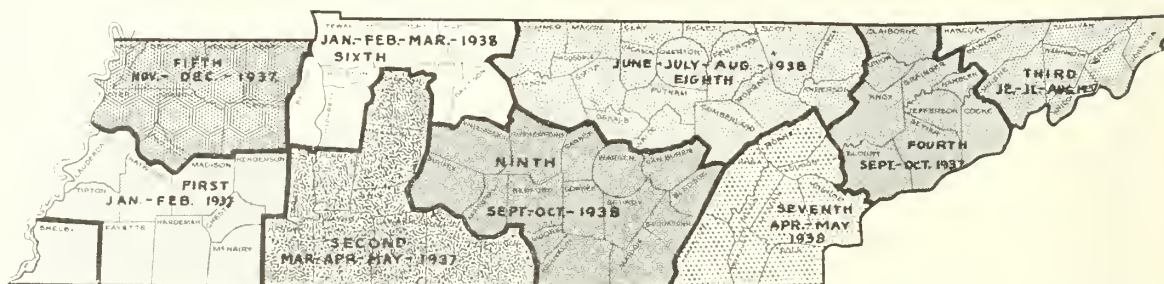
outlined, this circuit will open the third week in June, after two weeks' vacation for the instructor, and it will end the last week in August.

As a fourth circuit, it is then proposed to include the counties a little further south, i. e., Claiborne, Union, Grainger, Hamblen, Jefferson, Cocke, Knox, Sevier, and Blount, with possible teaching centers at Morristown, Greeneville, Newport, Jefferson City, Knoxville, and Alcoa. Five teaching centers will be chosen out of the foregoing according to the wishes of the doctors in this territory. (Please note map in connection with these circuit outlines which is attached to this report.)

This circuit will open in early September and close the second week of November, 1937.

*Circuit No. 4* will open about the middle of November, 1937, with the program again returning to West Tennessee and will include the counties of Lake, Obion, Weakley, Henry, Dyer, Gibson, Crockett, and Carroll, and throughout the second year it is then proposed to have the program move slowly eastward again, placing a course within reach of all counties and all doctors of Tennessee by the time the fifth, sixth, seventh, eighth, and ninth circuits are covered. (Note in this connection the map attached.)

#### TENTATIVE OUTLINE OF POSTGRADUATE CIRCUITS FOR 1937 AND 1938



Note: Leaves four weeks for Memphis. Also possible courses for colored physicians of Memphis, Nashville, Chattanooga, Knoxville

*Attendance Certificates.*—It is proposed by the chairman of your committee that a certificate of attendance be given to all doctors who attended eighty per cent (or seventy per cent) of the lecture sessions in this postgraduate course in obstetrics. This is for the reason that it has been the experience in other states that university officials and other agencies sponsoring postgraduate medical teaching have in later years been called upon for official credentials for doctors taking these courses and who were applying for public health and other appointments with the federal, state, county, and municipal governments. Most life insurance companies and other examiners' positions with industrial organizations require written applications by physicians, and one of the questions asked is that a doctor list all postgraduate study accomplished since leaving medical school and that official credentials be attached.

As a definite indication of greater loyalty on the part of doctors to their state medical association that occurred out of our experience with the first circuit, we refer you to the closing sessions of this course in the teaching center of Covington, where, after the last lecture, a business meeting of the county society was called, the county society reorganized, election of officers was held, and four new members paid their dues to the state medical association, with a total of nine paying dues into the society that night. In addition, a delegate and an alternate were elected to attend the state medical association meeting in Knoxville. This occurred by reason of doctors of this county gaining the habit of assembling once a week for a period of ten weeks and becoming enthusiastic once again over their coming together for scientific study and self-improvement. This reorganization, election of officers and delegates occurred late in



the new year and on the date night of Monday, March 8. Further, in Brownsville, before the closing of the course, the society secretary had every ethical and legal practitioner in his county signed up and their dues paid to the state medical association. This followed promptly after letters were dispatched from the committee's office urging that the use of the assembly of the doctors in these sessions be made for this purpose and that some time be given to a business session for this purpose. In Madison County the society secretary advises that they have only two members who were eligible in this county whose state society dues are not paid in this county. The committee does not believe that any special credit is due this course in Madison County in this direction, for Madison County has had a most active secretary who urges the payment of the annual dues each year. In Selmer, at the last lecture, a county society business session was held, and the society elected a delegate and alternate to the Knoxville meeting; also nine doctors paid their dues that night for the state association, and a check was given the field director of our program that in turn was given to our president, Dr. W. L. Williamson. At Bolivar, the fifth center in the first circuit, two additional doctors, it is believed, paid their dues this year in the state association by reason of the course functioning for ten weeks in that county and the resultant good feeling on the part of the doctors for what the Tennessee State Medical Association was doing in returning them a part of their dues and money paid into their association in the form of a program for their own professional improvement.

*Summarizing.*—It is my candid belief that a total of twenty physicians in the territory and the counties included in the first circuit joined the Tennessee State Medical Association and paid their dues this year promptly at the close of the course in their counties by reason of the course having functioned in their counties; further, that other annual dues were paid more promptly by reason of added feeling of loyalty on the part of the doctors; also that delegates and alternates to the Knoxville meeting were elected from some of these counties who had not in the past years sent delegates. Further, it is my prediction that an approximate total of 1,000 doctors in the State of Tennessee will eventually take this postgraduate course in obstetrics, and in addition that six to ten thousand laity will listen to the advice of a specialist in maternal welfare before the end of the two years, when Dr. Whitacre, the instructor, has completed the program, and will have offered his message showing the urgent need of prenatal care for expectant mothers.

*Financial Report.*—It is not within the realm of your chairman to make a detailed financial report, for this will be made by Dr. C. M. Hamilton, treasurer of the Tennessee State Medical Association.

It is his duty, however, to let you know that all disbursements are made by your state treasurer. The committee's office has kept a detailed account of all expenditures, and is in a position to give an analysis of all expenditures. Briefly, I will say that \$16,500 was the budget for the first year's work beginning December 1, 1936, and ending December 1, 1937. Expenditures for all items of the first quarter was \$5,751.01. Balance available for the last eight months of this year, \$10,748.99. Estimated needs for the remaining eight months, \$10,459.14. Therefore, based on past expenditures and above the estimated needs for the next eight months there is an overamount of \$289.85. It will be of interest to note that in our budget division of allotted money in only one instance, namely, the instructor's equipment and supplies, was there any shortage in the estimation of any part of the budget and this was only \$13.98.

*Lecture Books.*—Five hundred ten lecture books were made up at the cost of \$217.87. These books are to be sold at the rate of \$1.00 apiece. To date eighty-five of these books have been sold with cash on hand and in a special deposit account. It can be seen that there will be a profit of almost fifty per cent over the cost of said books. To date the number of books made up will not be sufficient to give every one in the state who attends this course a book. A second series will have to be made up, but will be paid out of the returns from the sale of the present books. It is felt that after all men have been supplied in the state the approximate fifty per cent profit should be returned to the treasurer of the Tennessee State Medical Association.

*Physicians' Fees.*—Ninety paid enrollments for the first circuit have been paid into your treasurer. One man was given the course gratis. One hundred per cent have paid enrollment. Four hundred fifty dollars were turned over to your treasurer.

*Second Circuit.*—One hundred two enrollments have been made in second circuit. Ninety-five have already paid. Seven have not paid. Five of these are colored in the Jackson colored circuit, and Dr. Whitacre is collecting the fee at the rate of \$1.00 per week. One because of his age and inability to pay has been given the course free. Four hundred seventy-five dollars to date have been received by your treasurer. Therefore, \$925 have already been turned into your state treasurer, and, of course, the advancement of \$500 by the Tennessee State Medical Association for an increase in Mr. Kibler's salary will be taken out of same. It is apparent from this financial report that your committee has assumed the responsibility of conserving the funds appropriated for the project and that there will be funds left well and above this budget when this course has been completed.

It is my judgment that no better program could



be sponsored or offered in any subject in medicine by a state medical association, and that at the end of the two years a course in internal medicine, pediatrics, surgical diagnosis, or traumatic or orthopedic surgery should immediately follow, because doctors are now asking for these subjects to be considered and given. Copies of the financial report, book, and physicians' fees are herewith attached.

JAMES R. REINBERGER, Chairman.  
FRANKLIN B. BOGART.  
O. W. HYMAN.  
JOHN M. LEE.  
J. O. MANIER.  
OTIS S. WARR.  
JOHN B. YOUMANS.

#### Financial Statement

Budget Division	Allowance	Expended To April 1	Balance Available for Last Eight Months	Estimated Needs for Next Eight Months	Balance Remaining Above Estimation
1. Salaries and Travel	\$14,700.00	\$4,900.00	\$9,800.00	\$9,800.00	
2. Office Supplies and Equipment	500.00	282.46	217.54	160.00	\$57.54
3. Instructor's Equipment and Supplies	350.00	333.98	16.02	30.00	13.98
4. (a) Printing and Mimeographing	446.00	100.68	345.32	201.36	143.96
(b) Lecture Books		*218.87			
		319.55	126.45	201.36	74.91
5. Postage	300.00	71.17	222.83	154.34	68.49
6. Telephone and Telegrams	204.00	56.72	147.28	113.44	33.84
	\$16,500.00	\$5,751.01	\$10,748.99	\$10,459.14	\$303.83
					13.98
					Balance— \$289.85

\*Cost of lecture books—\$218.87—will be taken care of from sale of lecture books at \$1.00 each. \$85.00 is already on deposit in the bank through sale of these books.

#### Enrollments Statement

O. B. CIRCUIT No. 1 (January 4-March 13, 1937)

Covington	14
Brownsville	18
Jackson	29
Solmer	13
Bolivar	17

91	Enrollments
90	Paid Enrollments
1	Gratis
91	
100%	Paid Enrollments at \$5.00
	\$450.00

O. B. CIRCUIT No. 2 (March 15-May 22, 1937)

Jackson (Colored)	21
Dickson-Centerville	17
Payetteville	20
Pulaski	20
Waynesboro	24

102	Enrollments
95	Paid Enrollments at \$5.00
	\$475.00
	\$925.00

7 have not paid—  
5 of these are colored, of whom  
1 is gratis.

O. B. CIRCUIT No. 3 is now being organized, with  
TENTATIVE CENTERS at:

Kingsport  
Bristol  
Elizabethton  
Johnson City  
Greeneville

#### Lecture Book Statement

Number of books mimeographed	510
Number of books sold (see list attached)	85
Number of books given out gratis (see list attached)	10
Total number of books disposed of	95
Number of books remaining on hand	405
Cost of books	\$217.87
Eighty-five books sold at \$1.00 each	85.00

THE SPEAKER: Committee on Child Welfare, Dr. Anderson of Chattanooga. (Absent.) Cancer Committee, Dr. Monger.

Dr. Monger read his report.

#### REPORT OF THE CANCER COMMITTEE

The increasing death total of cancer in this country is a challenge to the medical profession and the control of the disease admitted one of its major problems. Those who have studied the subject most believe that from one-third to one-half of the one hundred and fifty thousand cancer deaths which occur in the United States each year could be prevented by the eradication of precancerous conditions and by early and proper treatment of actual cancers. Comparatively few physicians have given the subject sufficient thought, and the majority of them are not awake to the opportunities and potentialities which are theirs for the control of cancer. The speaker was invited to attend a meeting of the Educational Committee in Nashville in November, 1936. In addition to the educational program among the lay people, this committee suggested the idea that the physicians throughout the state should become more cancer-minded. Following this meeting, the state was equally divided among the Cancer Committee, and the secretary of each county medical society was contacted. He was requested to arrange a program on cancer in his society between that time and the state meeting in April. The response was good, and in some instances, even in the smaller counties, not only papers but symposiums on cancer were held.

Until more is known about the exact nature of cancer and better methods of treatment are available, any great improvement in the mortality of cancer can come only through the education of the public and through an arousing of the medical profession from its lethargy in regard to this disease.

We believe that the Cancer Committee of the state medical association should form a Speakers Bureau of Physicians who are interested and willing to cooperate. We do not know the essential function of this bureau other than that county medical societies are requested to appoint cancer committees to cooperate with the state committee. After funds are received from the Women's Field Army, the Cancer Committee can thus make known its plans for furthering cancer educational work. In this connection, while it is true that the medical profession needs stimulating, education, and re-education in regard to cancer, it is our feeling that physicians have greater interest in cancer prevention and treatment than is manifest. What we mean to say is that we believe county medical societies should have many cancer programs and that

many members of these societies either personally or as representative of their societies render public service by making talks on cancer prevention before lay groups, which activities are at best only meagerly recorded as the accomplishment of medicine in its effort to control this disease. We would like to see an accurate record made of such activities, and we would commend this as an additional worthwhile objective for the state association and the county medical society cancer committee.

Believe it or not, the Cancer Committee actually had a meeting this year. This was held March 15 at Nashville, Tennessee, and a quorum was present. This committee met previous to a meeting to organize the Women's Field Army for the state of Tennessee. Inasmuch as funds are to be available after the Women's Field Army membership drive is completed, it was necessary to elect a treasurer, and the member selected for this office was Dr. Howard King, Nashville, Tennessee.

You may want to know something about the Women's Field Army. This is an organization sponsored by the American Society for the Control of Cancer and the American Federation of Women's Clubs. It will operate in its fight against cancer in complete cooperation with the reputable medical profession as represented by its national, state, and county units. It will endeavor to acquaint the public with the true facts about cancer and hopes to offset as much as possible the vicious teachings of quackery that now exploit those who have, or think they have, cancer. The potentialities for good of this budding organization are tremendous. We have every reason to believe that it will be conducted on thoroughly orthodox lines and that it is deserving of our full support, including the supporting membership that will be available to physicians.

The American Society for the Control of Cancer with the support of the Women's Field Army is now conducting an extensive campaign throughout the United States for the education of the public in regard to cancer. The national leaders of this organization are Mrs. Grace Morrison Poole, a past president of the American Federation, and Mrs. Marjorie B. Illig, the chairman of its department of education. Commanders have been appointed for each state. January 25, 1937, the speaker attended a meeting at the Peabody Hotel, Memphis, Tennessee. There were representatives present from Illinois, Missouri, Arkansas, Texas, Louisiana, Florida, Mississippi, Alabama, North Carolina, and Tennessee. Mrs. Rogers N. Herbert, Nashville, was selected as the commander for Tennessee. March 15, 1937, the meeting was held in Nashville to further complete the state organization. Vice-commanders from each congressional district were appointed, and these in turn are to select their captains and lieutenants. The membership drive is now being conducted in thirty-eight states.

The State of Tennessee has been asked to enlist two thousand members as its quota. The price of

these memberships is one dollar. These funds are distributed as follows: seventy per cent is returned to the state; twenty per cent is redistributed over the Southern States; and ten per cent is set up as a contingent fund. Thus you see that within the next few weeks the sum of fourteen hundred dollars will be available in Tennessee. This is to be used any way the Board of Trustees, Educational Committee, and Cancer Committee might deem advisable. This membership drive is also to be an annual one, so you see as the quota can be increased from year to year and as it gains momentum in its progress, the possibility for an increasing fund is an almost certainty.

In conclusion, let me state that this work is done with the state medical society through its Cancer Committee.

RALPH H. MONGER.  
HOWARD KING.  
FRANK SMYTHE.  
H. S. SHOULDERS.  
E. J. SULLIVAN.

THE SPEAKER: Committee on Physical Therapy. Is Dr. Meyer of Memphis present? (Absent.) Gentlemen, I think that will finish up the session for this afternoon, and unless someone has something special to say, we will adjourn until nine o'clock tomorrow morning.

#### AMENDMENTS TO CONSTITUTION AND BY-LAWS

DR. H. B. EVERETT: Mr. Speaker, I understand there is some new business to be introduced this afternoon. Dr. Patterson has something.

THE SPEAKER: We will hear from you now.

DR. PATTERSON: I have a proposed amendment to Chapter VI, Section 4 of the By-Laws that I should like to read at this time.

"The secretary of this association shall devote part of his time to the interest of the state association. He, as chairman, acting with the Committee on Scientific Work, shall prepare and issue the programs for and attend the meetings of the association and shall keep the minutes, or cause them to be kept, of the scientific proceedings. He shall be the editor of the JOURNAL of the association, unless a special editor is otherwise provided, and shall discharge such other duties as the trustees shall direct. His salary shall be determined by the trustees.

"The trustees shall be empowered to select at their discretion a whole time executive secretary who may or may not have been a member of this association and may or may not be a graduate in medicine. The executive secretary shall attend the meetings of the House of Delegates and shall keep the minutes of these meetings. He shall be the custodian of all records, books, and papers belonging to the association, except such properly belonging to the secretary, the editor, the treasurer,

the council, the sections, and the various committees, and shall keep account of and promptly turn over to the treasurer all funds of the association which come into his hands; he shall provide for the registration of members and delegates at the annual session; and, upon request, shall transmit a copy of this list to the American Medical Association. In so far as is in his power, he shall use the printed matter, correspondence and influence of his office to aid the councilors in the organization of county societies and in the extension of the power and influence of the association. He shall visit each Councilor District at least once a year, and more often, if advisable, and assist the councilors in organizing unorganized counties, and use every means possible to promote the interests of the association. Should the executive secretary and councilor deem it wise to organize two or more counties into one society, they shall have the right to take such action and such societies shall be recognized by the state association. He shall conduct the official correspondence, notifying members of meetings, officers of their election and committeemen of their appointment and duties. He shall discharge such other duties as the trustees shall direct, and his salary shall be determined by the trustees."

THE SPEAKER: That will be referred to the Committee on Amendments, Dr. W. P. Wood, chairman.

#### Proposed Amendment to Constitution

DR. J. B. STANFORD: I should like to preface my remarks by reading Section 1, Article VIII of the Constitution of the Tennessee State Medical Association.

"The officers of the association shall be a president, a vice-president for each of the three grand divisions of the state, a secretary, three trustees, one from each grand division of the state, one of whom shall be elected annually by the trustees as treasurer of the association, and ten councilors, one from each congressional district, and a speaker of the House of Delegates."

Those are obviously constitutional officers, and as constitutional officers they cannot be increased in number or their duties changed, except by constitutional amendment. Oddly enough, due to some error or oversight or peculiar ruling a few years ago, two other members were added to that by amending the by-laws, which I hold is unconstitutional. I think it was very wise to add these other two members to the Board of Trustees. For some reason, the duties of the trustees have been increasing. They have either been given more duties or they have been assuming more duties and have functioned as an executive committee, which I think is very wise.

Since the trustees have so many additional duties, including the appointment of all committees, I don't think five members are enough. Therefore,

to make the additional two legal and to increase the membership by another three, I propose the following amendment to the constitution, Article IX, Section 1 to be amended to read as follows:

"The Board of Trustees composed of the retiring president, the speaker of the House of Delegates and the six members of this association, elected as heretofore provided, shall select its own chairman, who shall be ex-officio treasurer of this association. The trustees shall have entire control of the publication, the policy and the editorial and financial management of the JOURNAL of the association. It shall be authorized and empowered to make all contracts necessary for the conduct of the association."

And another, Article VIII, Section 1, which perhaps should have been read first:

"The officers of the association shall be a president, a vice-president for each of the three grand divisions of the state, a secretary, eight trustees, ten councilors, and a speaker of the House of Delegates. The retiring president and the speaker of the House of Delegates shall be trustees, and two trustees shall be elected from each of the three grand divisions of the state. The trustees shall elect one of their number annually as treasurer of the association. One councilor shall be elected from each Congressional District.

"Section 2. The president, three vice-presidents, speaker of the House of Delegates and the secretary shall be elected annually for one year. Two trustees shall be elected annually for three years. Five councilors shall be elected annually for two years."

THE SPEAKER: That is to go to Dr. Wood's committee. Is there any other new business? If not, a motion to adjourn is in order.

Upon motion regularly made, seconded and carried, the meeting recessed at four twenty-five o'clock.

#### WEDNESDAY MORNING SESSION

The meeting convened at nine-thirty o'clock, Speaker Zemp presiding.

THE SPEAKER: The house will please come to order. Under reports of Standing Committees, we will now hear from Dr. L. W. Edwards' Committee on Public Policy and Legislation.

Dr. Edwards read his report.

#### REPORT OF THE LEGISLATIVE COMMITTEE

*Mr. Speaker and Members of the House of Delegates:*

Your Legislative Committee begs to submit the following report for your consideration:

At the last meeting in Memphis in April, 1936, this body instructed our committee to sponsor the passage of two bills in this legislature, namely: A bill to revise the present Medical Practice Act of Tennessee and a Basic Science Act.



At a meeting of the Legislative Committee in Nashville on January 8, 1937, Mr. Charlie Cornelius, a Nashville attorney, met with the committee for the consideration of the proposed legislation. Dr. H. W. Qualls, secretary of the State Board of Medical Examiners, was also present and made several suggestions relative to various amendments which he thought should be included in this act. We were advised by Mr. Cornelius to put this bill in the form of an amendatory act rather than to write a new Medical Practice Act, which was done. The principal objective to be obtained by this act was to establish the State Board of Medical Examiners by the appointments to be made by the governor from a list of names submitted to him by the House of Delegates, five from each grand division of the state, from which list he would make appointments to the State Board of Medical Examiners, similar to the setup of the present State Council of Health. This is the first amendment in the new bill, known as *Senate Bill No. 368*. It was thought advisable to word the amendment so that the appointments would be made only as vacancies occur, rather than to set up a new board immediately.

The per diem pay to members of the board was changed from five dollars to ten dollars, with necessary expenses for travel and subsistence while carrying on their duties.

The second amendment in this act is to do away with *Section 6923 of the Code*, which requires all applicants for examination to pay a fee of ten dollars to the Department of Education for a certificate of preliminary qualifications. Your committee feels that this requirement is unnecessary, since the requirements of the Board of Medical Examiners is that all applicants be graduates of Class A medical schools. The committee recommended that the fee of fifteen dollars, as now charged by the Board of Medical Examiners, be raised to twenty-five dollars, thus being relieved of the fee for the certificate of preliminary qualifications; it also recommended that the fee for issuing reciprocity of licenses from other states be raised from twenty-five dollars to fifty dollars.

An amendment was also included by adding a separate paragraph to Section No. 6932 of the Code on the Suspension or Revocation of Licenses by the Board of Medical Examiners. In this paragraph a detailed procedure is set out for the Board of Medical Examiners to follow on the question of revocation of licenses of physicians, which gives them absolute power on this point, and there should not be any trouble whatsoever in revoking the licenses of physicians who violate this act or any federal act, or those who are guilty of misconduct in any way.

There were several other amendments also written into this act relative to advertising in any form, and the question with reference to people who are not regularly licensed physicians using X-ray machines or any other electrical therapeutic agents

in any way, except technicians who are regularly employed by physicians or dentists. This bill is now in the hands of the Senate Committee of Public Health and Sanitation.

We have the cooperation of the administration and think that this bill will be passed by the legislature after it convenes.

The first problem that came up during this legislature was brought about by a section which was written into the new Reorganization Bill under the Health Department. We had not anticipated any change being made by the administration in our present Public Health Act, but when Dr. Carter Williams, commissioner of health, read the section of the Reorganization Bill pertaining to the Health Department, he found a paragraph which completely destroyed the function of our present Council of Health, by making it purely an advisory council. In other words, it reverted back to the same status of the former Council of Health which was in force before our State Board of Health Bill was enacted two years ago. The Reorganization Bill had passed final reading in the House and was to come up for final passage in the Senate the next morning, when Dr. Williams called our attention to this change. We immediately got in touch with Governor Browning and through his cooperation were able to put in an amendment which reestablished the function of the Council of Health, thus causing the section to read the same as it did in the 1935 Act. Due credit should be given Dr. Williams for his splendid cooperation in this matter; and also Governor Browning for his cooperation, for after all it was an oversight on the part of the administration and was not intended to destroy our Council of Health.

Working with Mr. Cornelius, your committee formulated a Basic Science Act which required all applicants practicing the healing art to pass an examination on the basic sciences, to wit: anatomy, physiology, chemistry, pathology, and bacteriology, the examinations to be given by the Board of Medical Examiners, from whom they would receive a certificate on the basic sciences, and then go to their respective boards, osteopathic, chiropractic, etc., to take the examinations and receive their licenses to practice. This act was introduced in the Senate and House along with the Medical Practice Act, but we met so much opposition from the legislators, osteopaths, and chiropractors that it became obvious that we could not pass a Basic Science Act in this form.

After repeated consultations with some of the senators, we were advised to modify this act so as to break down as much opposition as possible. After reviewing the basic science acts now in force in many of the states, an act was written, copied largely from the Basic Science Act of the State of Minnesota, which board is composed of three doctors, one osteopath, and one chiropractor. The act is very complete and since it has been in effect has reduced in that state the licensing of osteo-

paths and chiropractors from an average of twenty a year to one a year. The osteopathic association in this state readily agreed to a Basic Science Act consisting of four doctors and one osteopath, and would have put all of their force behind the bill to pass it, and a majority of your Legislative Committee was in favor of passing this bill, because it felt that complete control would have been in the hands of physicians on the board, said members to have been appointed by the governor from a list of names submitted by the house; but some of the members of your committee objected on the grounds that they thought it was unwise to have a composite board; therefore, a meeting of the Legislative Committee was called on February 28, 1937, and after discussing the matter thoroughly, it was obvious that there was divided opinion on the question, and it was decided to withdraw the Basic Science Act and concentrate all our efforts on the passage of the Medical Practice Act.

So much time was spent by the committee in trying to establish a satisfactory Basic Science Act that it has delayed the passage of our Medical Practice Act, but we gained much information in contacting members of the legislature and various other people, and feel that if we set about preparing for the next legislature a Basic Science Act can be passed in this state that will be satisfactory and successful.

It is obvious from a study of the basic science boards in many states that we will have to be very careful in setting up this board, in that members of the board should be persons who are particularly fitted to give examinations in the basic sciences, such as full-time teachers in the various schools, or the board will immediately become a farce and not accomplish the work for which it is intended. In a recent conference with Governor Browning, we have been assured that our Medical Practice Act will be put on the program for passage when the legislature reconvenes from its present recess. Your committee would recommend that the House of Delegates select a list of fifteen names, five from each grand division of the state, to be submitted to the governor for appointments to the State Board of Medical Examiners, because there are one or two vacancies to occur next month.

Your committee would also recommend that the members of this association contact the legislators personally or by letter in their respective communities between now and the time the legislature reconvenes, and request that they support this bill. Your committee feels that the proposed Medical Practice Act, as now written, is a progressive piece of legislation that should be enacted and that every member of this society should lend a hand in getting the bill passed.

Your committee was called on to oppose, during this legislature, the passage of a bill known as the Naturopathic Bill, which was introduced and which was a very pernicious piece of legislation.

It would have allowed the worst form of quacks in this state.

We appeared before the Senate's Judiciary Committee to oppose this bill and I think have succeeded in preventing its passage.

It became obvious to us that there are several states that have a basic science law that is absolutely a farce. Some of the boards are made up of laymen and people of various professions who hold these examinations, and that apparently would not be what we would want.

Now, the time was passing, and we were having a good deal of opposition to this. We had Mr. Cornelius write a Basic Science Act which we largely copied from the State of Minnesota's Basic Science Act, in which a composite board was set up consisting of four doctors and one osteopath.

An investigation showed that in the State of Minnesota and also in Wisconsin, with this board functioning, before the act was passed, there was an average of about twenty osteopaths and chiropractors licensed in those states a year, and since this act has been in effect there has been an average of one osteopath and chiropractor licensed in that state.

We wrote this act, then, with the setup of four doctors to be appointed by the governor, from a list of names to be submitted by the Tennessee State Medical Association and one osteopath to be selected from a list of three recommended by the osteopathy association.

We felt that this act would function, that it would accomplish the results that we wanted, and at this present legislature it was certainly the only way that we could get an act through, because of the opposition of these people and the fact that the legislators felt that the doctors were trying to take advantage of these other professions. Since they would have representation on this board, as they are legally licensed to practice their profession in the state, it sounded very reasonable to the lawmakers that they should have representation.

We contacted the various members of the Legislative Committee. As you know, I am the only member of the Legislative Committee in Nashville, with the exception of Dr. Shoulders who, by his office, is an ex-officio member. We did a good deal of work on this. Then I contacted the various members of the Legislative Committee, Dr. Malone, Dr. Williamson of Memphis, Dr. Barry of Knoxville, Dr. Ray of Shelbyville, and Dr. Cocke of Memphis.

Some of the members of the committee felt that it was not wise to pass an act with a composite board. We then called another meeting of the Legislative Committee. While a majority of the members expressed themselves favorably on this bill, and it could have been passed, still there were some members of the committee who thought it was not the best thing to do. I personally felt that since there was a division in the committee



it was not wise to go ahead and push the legislation through.

Then we decided at this meeting on February 28 to withdraw the Basic Science Act and not try to pass it at this session of the legislature. That was done. So that bill was withdrawn, and we are not making any attempt to put it through this legislature.

Mr. Chairman, I want to make this suggestion at this time to the members of the Tennessee State Medical Association, that every member of this society make an effort between now and the next legislature to cooperate in trying to prepare a Basic Science Act, and work on the legislators and try to get it through next time. I am convinced that we are going to have to go about it very much in the same way we did in getting our State Board of Health law passed. You are certainly going to have to make preparation for it.

Too, one would be astounded when you investigate, I think, the status of our legislature along this line. So many states have a functioning basic science act now, that Tennessee is really getting to be a dumping ground for a great many of these various professions practicing the healing art. I think it certainly should be passed and made to function in a satisfactory way.

It is going to take a great deal of work to do it, and I am sure it cannot be done at this session of the legislature. I think we can explain that the delay we have had in getting this through was due to the fact that we did so much work in trying to put it through again. But, as I said, the present status of the Medical Practice Act is that it is now in the hands of the committee of the legislature, but the governor has promised us that he will put it on his program and pass it as soon as the legislature reconvenes after its present recess.

Another thing that your committee had to contend with during this legislature was to combat the passage of a bill that was introduced, known as the Naturopathic Bill in the legislature, which was one of the most pernicious bills ever introduced, allowing quackery to be practiced in the state. So, we went before the Judiciary Committee of the Senate and opposed this bill, and I think have it safely tucked away where it will not get out. It took a good deal of effort to combat that.

A good many members of the legislature took an interest in the Naturopathic Bill and were very anxious to get it through. That bill was so pernicious that a bathhouse in the state could not give a bath unless a member of this naturopathic organization was there to supervise it.

Your committee would also recommend, Mr. Speaker, that at the meeting at this time, a list of names be nominated and submitted to the governor, five from each grand division of the state, to make up the State Board of Medical Examiners, anticipating the passage of this bill when the legislature reconvenes.

THE SPEAKER: That is in May, isn't it?

DR. EDWARDS: Yes. There will be one vacancy, I know, on the State Board of Medical Examiners very shortly, and perhaps another vacancy inside of a year. Anticipating this bill being passed after the legislature reconvenes, it is recommended that these names now be passed on by the house so that the governor will have the list from which to make his nominations.

THE SPEAKER: Dr. Edwards, I was asked last night by this committee to let them know about whose term expires so they could recommend another one for that position.

DR. EDWARDS: The State Board of Medical Examiners?

THE SPEAKER: Yes.

DR. EDWARDS: I could not answer that, but I spoke to Dr. Bryan of the Nominating Committee about selecting a list. They have this list.

THE SPEAKER: I should say the Board of Health.

DR. EDWARDS: Your chairman wishes to thank Dr. Williamson, president; Dr. Shoulders, secretary; and the other members of the Legislative Committee; also the members of the Board of Trustees, for their hearty cooperation and assistance in the efforts that have been made in carrying on this work.

That is the sum and substance of what this committee has been doing. We feel fairly certain now that the Medical Practice Act, known as Senate Bill No. 368, will be passed as soon as the legislature reconvenes.

I would like to take this opportunity of requesting all the members between now and the time the legislature meets again to contact your local representatives, the Senators and members of the House, and try to use your influence in getting them to support this bill.

We had this bill brought up in the Senate just before the recess. When we found they were suddenly making plans to recess the legislature, we had it called out of committee and brought up in the Senate, hoping to get it passed. We trotted that thing out one morning, and they discussed it in the Senate for about forty-five minutes. They were pretty severe in their criticism of the Tennessee State Medical Association. Even in this bill, the Medical Practice Act, we were called everything from a Mussolini to a Hitler in trying to establish dictatorships, which just gives you an idea of the feeling of legislators oftentimes and how they misunderstand our intentions when we go to pass such legislation.

I think every member of the society ought to make an effort to contact his members of the legislature in his community and try to get them to support the bill.



THE SPEAKER: That goes to Dr. Wood's committee.

That is a splendid report. This committee certainly has been on the job. I think the trouble with us is we are all sluggards when it comes to anything in regard to legislation. Dr. Edwards phoned me one week end. I think he gave me two days in which to contact all of the members of the legislature. I contacted every one of them. I believe if all of you would do that, contact the legislators and talk to them—when we talked to those men, they seemed very favorable to this bill. They didn't know anything about it; they didn't understand the caption of it; they didn't know what it meant. They go down there and vote blindly.

I believe if everybody would contact the representatives and senators, we could do a great deal more to help this committee than anything else. Then, we are always behind in the fact that we don't scrutinize the fellows that we send to the legislature. I think we should pick out and work for the men who are favorable to a higher class of legislation in regard to medical matters in the State of Tennessee. The medical profession has a powerful influence. There is hardly a physician in any community that doesn't control twenty-five or fifty votes. You can send the right men to the legislature if you will just work a little.

If you will all contact your legislators, as we did here, every one of them, and sit down and talk to them, I believe you will make it much easier for our committee to function, and we will get results.

THE SECRETARY: There are some matters I wish to bring to the attention of the house at this time, in order for them to be referred to the proper committees for action and recommendations. The first is a communication from Miss Aurelia B. Potts, president of the Tennessee Nurses' Association.

The secretary read the communication from Miss Potts.

#### TENNESSEE STATE NURSES' ASSOCIATION

March 30, 1937.

Dr. H. S. Shoulders,  
Doctors' Building,  
Nashville, Tennessee.  
Dear Dr. Shoulders:

In accordance with Chapter 39, Public Acts of Tennessee, 1935, the Tennessee State Medical Association is to submit the names of five practicing physicians to the governor, from which he will appoint two to serve on the Committee of Nursing Education and Nursing Practice.

During the past two years Dr. W. F. Fyke of Springfield and Dr. J. D. Brewer of Dyersburg have served on the committee. Their services have been extremely valuable and the Tennessee State

Nurses' Association would be glad to have them continue in this capacity.

May I thank you for your interest and cooperation.

Sincerely yours,

AURELIA B. POTTS, *President*,  
Tennessee State Nurses' Association.

April 3, 1937.

Aurelia B. Potts, President,  
Tennessee State Nurses' Association,  
Peabody College,  
Nashville, Tennessee.

Dear Miss Potts:

Please accept my thanks for your letter of the thirtieth, calling attention to the provisions of Chapter 39, Public Acts of Tennessee.

Please be assured that this will be brought to the attention of the House of Delegates at Knoxville, at which time the list of nominees will be formed.

Very truly yours,  
H. H. SHOULDERS, *Secretary-Editor*.

THE SECRETARY: That will be referred to the Nominating Committee.

DR. BRYAN: Does it specify as to which grand divisions these five should come from?

THE SECRETARY: I couldn't answer as to the provisions of the law. I think Dr. Fyke or Dr. Brewer could.

THE SPEAKER: That will be referred to the Nominating Committee.

THE SECRETARY: The next is a communication from Mrs. Cunningham, librarian of Vanderbilt University School of Medicine, in which a request is made that the Tennessee State Medical Association take some action to cooperate in maintaining the Army Medical Library on its present status or to improve it. I will read a portion of it.

The secretary read the communication from Mrs. Cunningham.

#### MEDICAL LIBRARY ASSOCIATION

New York, December 12, 1936.

Dr. H. H. Shoulders, Secretary,  
Tennessee State Medical Association,  
Doctors' Building,  
Nashville, Tennessee.  
Dear Dr. Shoulders:

During the past few years, the Army Medical Library has been unable to obtain sufficient funds to maintain its books and periodicals on the same basis as in the past. There has also been a tremendous delay in getting out the fourth series of their catalog, due to insufficient funds.

The Library of the Surgeon General's Office, now known as the Army Medical Library, is perhaps one of the best collections of medical books in the world, and is an invaluable aid to the medical profession in all parts of the country, as they

lend to medical libraries in many sections of the country material which could otherwise not be obtained. It is therefore of the utmost importance that they be permitted to continue such splendid service.

The Medical Library Association passed a resolution requesting that all medical schools and societies in this country urge congress to appropriate sufficient funds to maintain this library at its former efficient level. This is to be accomplished by resolutions placed in the hands of local congressmen and senators throughout the country.

The Library Committee of Vanderbilt University School of Medicine and the Executive Faculty of Vanderbilt University School of Medicine have adopted the enclosed resolutions. Dr. Leathers suggested that I, as a member of the Executive Committee of the Medical Library Association, place this data before you, so that the Tennessee State Medical Association could, if so minded, pass a resolution urging the maintenance of the Army Medical Library.

Sincerely yours,

MRS. EILEEN R. CUNNINGHAM, *Librarian*,  
Vanderbilt University School of Medicine.

December 15, 1936.

Mrs. Eileen R. Cunningham, Librarian,  
Vanderbilt University School of Medicine,  
Nashville, Tennessee.

Dear Mrs. Cunningham:

I have your letter of the twelfth.

This will be presented to the next meeting of the House of Delegates for action.

Very truly yours,

H. H. SHOULDERS, *Secretary-Editor*.

**Resolution Recommending the Appropriation of Adequate Funds to Maintain the Army Medical Library's Book Collection and Index-Catalogue**

*Realizing* that in recent years the annual appropriation of the congress for the maintenance of the files of current medical books and periodicals in the Army Medical Library and for issuing the *Index-Catalogue* has been entirely inadequate, the medical profession fears that the former efficient service of the library to the profession will be seriously impaired.

*Therefore Be It Resolved*, That the Executive Faculty of the Vanderbilt University School of Medicine urge the congress to appropriate an adequate sum annually to maintain the files of current medical periodicals and new medical books in the Library of the Surgeon General's Office, now known as the Army Medical Library; that this fund be increased sufficiently to permit the purchase of back publications not obtained during recent years when the amount appropriated was entirely inadequate, thus causing a serious handicap to the usefulness of the library's collection.

*Be It Further Resolved*, That a sum be appro-

priated annually to defray the cost of issuing a section of the *Index-Catalogue*.

**Resolution Recommending the Appropriation of Adequate Funds for the Maintenance and Growth of the Army Medical Library's Book Collection and Index-Catalogue**

*Whereas*, the medical profession of the United States realize and appreciate the value and usefulness of the Army Medical Library and the *Index-Catalogue*, and

*Whereas*, in recent years the annual appropriation of the congress has been wholly inadequate to provide for issuing the *Index-Catalogue* and for purchasing the current medical books and periodicals necessary so that they might be available for use throughout the country; the medical profession feel that this lack of sufficient funds is curtailing the former efficient service of the library to the profession and also the value and usefulness of the *Index-Catalogue*, which is dependent for completeness on the material contained in the Library of the Surgeon General's Office;

*Therefore Be It Resolved*, That the Library Committee of the Vanderbilt University School of Medicine urge the congress to appropriate annually to the Library of the Surgeon General's Office an adequate sum for current medical books and periodicals and for the purchase of back publications lost during those recent years when the amount granted was grossly inadequate, thus depreciating the completeness and usefulness of the library's collection; and additional sufficient sums annually, for as many years as may be required, in order to make for the greatest possible completeness of the collection and its catalogue.

THE SECRETARY: Mr. Speaker, I move that this request be referred to the Committee on Resolutions for consideration. They want some endorsement to the congressmen and senators from Tennessee with reference to the maintenance of the Army Medical Library, to keep it on its high plane.

DR. BATTLE MALONE: Permit me to say that that matter has already been brought by the Shelby County Society to the attention of Senator McKellar and our congressman, and we have the assurance of their support in continuing the work of the Army Medical Library.

THE SECRETARY: Do you think it appropriate that the state take definite action on it?

DR. MALONE: I believe it should be done. I want to say we have already secured the cooperation of Senator McKellar and Congressman Chandler.

THE SECRETARY: I know several individuals have done that. I didn't know societies had done it. I move that this be referred to the Committee on Resolutions, if it is appropriate, and

they can prepare suitable resolutions if thought wise.

DR. W. B. BURNS: I second the motion.

The question was put to a vote and carried.

THE SECRETARY: The next matter is this: As you know, there is under consideration in Washington the matter of reorganizing the various departments of the government. After much consideration, the Board of Trustees of the American Medical Association took an action which was in the nature of the adoption of a resolution which I will read to you. In essence, it is this: That, as previously mentioned on some of the recommendations, it was the idea to place the United States Public Health Department in the welfare department as one of the various units in it. When that became apparent, the Board of Trustees took the action that I referred to. I believe it would be wise for the House of Delegates to consider that. If you care to, I will read this resolution and refer it.

The secretary read the resolution adopted by the Board of Trustees of the American Medical Association.

#### **RESOLUTION ADOPTED BY BOARD OF TRUSTEES OF AMERICAN MEDICAL ASSOCIATION**

Recognizing that committees of the senate and of the house of representatives of the United States government and a special committee appointed by the president are at this time concerning themselves with the reorganization of government activities with a view to greater efficiency and economy, and recognizing also that the president, in his opening address to congress, indicated that he would shortly present to the congress recommendations for such reorganization of governmental activities in the executive branches, and recognizing moreover the great desirability that all activities of the federal government having to do with the promotion of health and the prevention of disease might with advantage be consolidated in one department and under one head, the Board of Trustees of the American Medical Association would recommend that such health activities as now exist be so consolidated in a single department which would not, however, be subservient to any charitable, conservatory, or other governmental interest. It has been repeatedly said that public health work is the first problem of the state. It is the opinion of the Board of Trustees that health activities of the government except those concerned with the military establishments, should not be subservient to any other departmental interests. This reorganization and consolidation of medical departments need not, under present circumstances, involve any expansion or extension of governmental health activities, but should serve actually to consolidate and thus

to eliminate such duplications as exist. It is also the view of the Board of Trustees that the supervision and direction of such medical or health department should be in the hands of a competently trained physician, experienced in executive administration.

THE SECRETARY: As you know, the work of the Child Welfare Department is under Miss Lenroot. I move that the resolution be referred to the committee for consideration.

THE SPEAKER: That is not necessary. It will be referred to Dr. Roberts' committee.

Is Dr. Rude present? (Absent.) We will hear from the Committee on Physical Therapy.

THE SECRETARY: Dr. Meyer of Memphis mailed me this report which I will read.

The secretary read the report of the Committee on Physical Therapy.

#### **REPORT OF COMMITTEE ON PHYSICAL THERAPY**

I herewith beg to give you a report on the activities for the year of the Committee on Physical Therapy.

Early in the year the members of the committee were contacted and asked to submit their viewpoints and ideas as to what method they considered best for the purpose of disseminating physical therapy propaganda to the doctors throughout the state.

Each of the members of the committee replied with the exception of Dr. J. P. Gilbert of Nashville. Dr. Gilbert was written a second time and again failed to answer my communication. The opinions varied considerably, and inasmuch as the members of the committee are separated by such wide margins, it was impossible to get them together for a called meeting.

In Memphis we have been extremely fortunate in having had several speakers of note appear here. In the early part of 1936 Dr. J. S. Coulter of Chicago addressed the Mid-South Postgraduate Medical Assembly. A few months later Dr. Kotkis from the Medical Department of St. Louis University paid Memphis a visit at my solicitation and addressed the staff of the Methodist Hospital. A little later on in the season Dr. Frank Krusen of the Mayo Clinic spoke before the Memphis and Shelby County Medical Society.

After all, while our activities for the first year of this committee have not been great, still we have likely done considerable pioneer work in Memphis.

It was the idea of the committee, if it continues, to attempt to send speakers to some of the county medical societies throughout the state in order to make an attempt to educate the rural doctors along the lines of physical therapy.

Respectfully submitted,  
ALPHONSE H. MEYER, Chairman.



THE SPEAKER: That goes to Dr. Percy Wood. Your committee might also consider whether this committee should be continued or not, whether it is worth while.

Dr. W. D. Anderson of Chattanooga? (Absent.) That completes the reports of the Standing Committees.

### COUNCILORS' REPORTS

We will take up the reports of the councilors. The First District. Dr. Dyer.

DR. L. E. DYER: Mr. Speaker and Members of the House of Delegates: This is the report of the First District, which is made up of ten East Tennessee counties, the extreme eastern portion. I will state that this past year has been a very successful year in our district from the standpoint of splendid meetings and good attendance. We have had more outstanding speakers, more prominent men from out of the state and from other societies visit our local societies in the First District during the past year than we have had, I believe, in a number of years.

Just a little report of what each county in the First District is doing: In Greene County, my home county, members of the society, 17; physicians in the county, 24; physicians eligible to join, 4. Shall I read all these?

THE SPEAKER: Yes, briefly.

DR. DYER: New members added to our society, 1; members dropped, none; meetings, 12; average attendance, 11½; scientific papers, 16.

In Carter County, members of society, 8; physicians in county, 13; physicians eligible to join, 5; new members added, none; deaths, none; members dropped, 1; meetings, 11; attendance, 8; scientific papers, 11.

Cocke County, members of society, 11; physicians in county, 15; physicians eligible, 2; new members, none; members dropped, none; meetings, 8; scientific papers, 3.

Sullivan-Johnson Counties. These are the large local societies and are doing a great work. Combined, they have a membership of 40. Physicians in the county, 15; physicians eligible, 5; new members added, 4; deaths, 1; members dropped, 3; meetings, 10; scientific papers, 20.

Another local society, which is on a par with this one and which is an ideal society, working hard all the time, is Washington County, Johnson City; 42 members; physicians eligible has been left blank; I think they overlooked it. New members added, 2; deaths, 2; meetings, 12; attendance, 19; scientific papers, 21.

We have two counties that are unorganized, and they are Hancock and Claiborne. They are just little mountainous counties, with one or two physicians. Those one or two physicians could attend either Morristown, which is in the Second District, or our society at Greeneville or up at Kingsport or Kingston. The same thing is true at Erwin;

that is in Unicoi County. Erwin has three physicians, and they attend over in Johnson City, which is three miles, on concrete highway, and also Elizabethton, which is close by. You might say they are affiliated with those and, in reality, they are organized. This past year has been very successful.

THE SPEAKER: Second District, Dr. S. R. Miller.

Dr. Miller read his report.

*To the House of Delegates:*

The Second Councilor District has made a slight improvement over the former year. Only two members have died during the year, and we have eleven new members, and eight members have been dropped for nonpayment of dues. It is the custom of these societies to drop a member when he does not pay his dues on or before the first of the year. Some of these eight members will pay their dues later, and will be reinstated. Thirty-one eligible members, including this eight, have been reported by the secretaries.

I have written all of these secretaries, except the Knox County secretary, whose report came in too late, for a list of the names and addresses of the eligible members, and I have written each of these eligible members, requesting and urging him to join his county society, so that we may have a thorough and complete organization.

I find that several of these thirty-one eligible members are old members, who are not very active, but still doing some practice. Many of these doctors are entitled to be put on the veteran list of members, and I have so written the secretaries.

In making the reports back to your societies, I wish you would take up this question of the veteran membership for a man seventy years of age or a man who is an invalid and has been a member of the society for a good length of time. Different constitutions and by-laws recommend different times of service. Those men ought to be put on the eligible list. Nearly all of these members are at or about seventy years of age.

There have been some ethical tangles arising in two counties, but the local councilor has been able to iron out all of them in a satisfactory manner.

We still have three unorganized counties, with too small a list of active doctors to maintain a society. Four doctors have joined societies of adjacent counties, and letters have been written to others, requesting and urging them to apply for membership.

Dr. McClintock, the secretary of the Campbell County Medical Society, died during the year. He has been secretary for many years, and after his death, the society was unable to locate its constitution and by-laws or charter.

I, as councilor, recommended that they prepare and adopt an up-to-date constitution and by-laws, and that has been done. A copy has been furnished the councilor, who has gone over it thoroughly, and finds that it conforms entirely with

the constitution and by-laws of this state association.

This matter has been reported to the joint council, who request the House of Delegates to issue Campbell County a charter to take the place of the one that has been lost.

I hope, Mr. Chairman, you will see that the house takes action on the question of issuing Campbell County a charter to take the place of the one that was lost.

Respectfully submitted,

S. R. MILLER, Councilor.

### CAMPBELL COUNTY CHARTER

THE SECRETARY: Will you make that motion right now? Wouldn't it be appropriate for you to make such a motion now?

DR. MILLER: I will do it now, if you say so. I move that the House of Delegates issue Campbell County a charter to take the place of the one that has been lost. They had a charter for many years.

The motion was regularly seconded.

THE SPEAKER: Does the council recommend it?

DR. MILLER: Yes, the joint council recommended it. We had a meeting yesterday afternoon, and they recommended that the House of Delegates do it.

The question was put to a vote and carried.

THE SPEAKER: Dr. Hiram Laws, Third District.

DR. LAWS: I didn't make an elaborate report because last year you didn't want it. The Third District is composed of fourteen counties of East Tennessee. Seven of those counties have no county societies, but the members of those counties, with the exception of about six—that is, the men who are in those counties are members of other adjoining county medical societies.

All of these counties that did not have medical societies were contacted through some doctor in that county who was a member of some other county society, with the exception of one, and that was Warren County, at McMinnville. Dr. John T. Moore wrote Dr. Shoulders and wanted to get a medical society started. In the STATE JOURNAL he was reported as secretary of that county. I tried to contact Dr. Moore; he didn't answer me at all. I tried to contact him since I got here, and I haven't been able to find him. So that will have to be taken up through the House of Delegates later on as to whether they can have a society in Warren County now or not.

THE SECRETARY: They have a charter.

DR. LAWS: I tried to contact them in order that we could get together and start them over again, but I didn't get any contact through correspondence at all.

There are seven counties that haven't any

county societies. Six of them reported. There are only about eight men in those six counties who are not members of other societies in adjoining counties, and most of those eight men are old men, and some of them are not active. That is my report.

THE SPEAKER: Fourth District, Dr. Moore.

DR. J. T. MOORE: I left in my room a written report of my district. I can give a summary of it. I had a report from seven counties: Wilson, Putnam, Sumner, Smith, Jackson, Cumberland, Overton. We have fairly good, active societies in these counties. Also we have an organization in Macon; in Rhea and some of the smaller counties like Clay, Fentress, and Morgan I couldn't get any report. I don't think they have any medical organization. We did try to get a medical society composed of Fentress County and Morgan County, tried to do that for two or three years, but they never met more than once.

I have gone up there and tried to organize them, but they will not take any interest in a county medical society.

One of the best functioning societies we have in our district is Wilson County. They are almost one hundred per cent in attendance. All members, I believe, belong to the society. Sumner County has a good organization. I will hand in my written report later on.

THE SPEAKER: Fifth District, Dr. John W. Sutton of Petersburg. (Absent.) Sixth District, Dr. Edwards of Nashville.

DR. L. W. EDWARDS: The Sixth District consists of Davidson, Robertson, Montgomery, Cheatham, and Houston Counties. There are active societies functioning in all these counties except Cheatham and Houston. In these two counties there are so few doctors, they have never been able to carry on an active society, so that the doctors practicing in these two small counties regularly attend the meetings held in Robertson and Montgomery Counties.

THE SPEAKER: Seventh District, Dr. C. D. Walton.

THE SECRETARY: I have Dr. Walton's report. Shall I file it?

THE SPEAKER: Just file it.

THE SPEAKER: Eighth District, Dr. Thompson, Jackson.

DR. J. R. THOMPSON: The Eighth District is composed of a group of counties in the eastern section of West Tennessee, which extends from Kentucky to the Mississippi line, probably the largest geographic group of all.

In that group all counties are well organized, either individually or in groups of counties, except two. One of those two is Benton County, in which only one eligible physician resides. That eligible man goes to one of the surrounding counties. The other is McNairy County, which maintains a skeleton organization with six eligible members, but

cannot apparently make up their minds as to which group of counties they wish to go to for scientific meetings.

The total number of men eligible in our district will not exceed twenty-five. Some of them do not answer my letters when I attempt to find out. I have had a list of ten eligible men not members, whom I have contacted and attempted to sell them the idea.

We are probably better organized now than in the past several years, due to the fact that the postgraduate series of obstetrical lectures have been given throughout our district, and only such men as were members of the association were allowed to take that course. That has been a big selling point.

We had three members die during the year, one in Madison County and two connected with the Tri-County. We have three new members in Madison County, so we are holding our own, to say the least.

I have here from the Henry County Society a notation that Dr. G. T. Abernathy of Paris has been elected a veteran member, and they ask that the House of Delegates pass on that. Is that necessary, Mr. Secretary?

THE SECRETARY: No, I think the local society determines that.

DR. THOMPSON: That is the extent of that.

THE SPEAKER: Dr. Baird of Dyersburg, the Ninth District.

DR. E. H. BAIRD: In the Ninth District, possibly we have made some progress during the past year. I have a report from nine counties. I will summarize the district as a whole.

Dr. Baird read his report.

THE SPEAKER: Tenth District, Dr. Burns.

DR. W. B. BURNS: Mr. Chairman and Gentlemen: This is the report from the Tenth District.

Dr. Burns read his report.

DR. BURNS: The president of our society, Dr. Warr, was unable to sign this report. He is deceased. The vice-president automatically became the president. Dr. Wilson Searight is now president of our society.

We have had paid up since, in this year, seventeen, which brings our membership beyond the eligible number up to 354.

THE SPEAKER: Why did you expel that member?

DR. BURNS: Do you want to tell them?

DR. A. F. COOPER: Professional abortionist. We had been laying for that bird for several years. He was that type of individual who was the first boy to pay his dues the first of the year. We couldn't refuse to allow him to come back in because he was paid up all the time.

The federal government got in behind him for violation of the narcotic law. We took advantage of that just as an undesirable member and charged

him under the forty-fourth provision of Articles of War, whatever they use in the army, with conduct unbecoming an officer and gentleman. We really got rid of him on that ground. We had been wanting to get this other on him, but we could never get it.

There is one point, while I am on my feet, that I should like to explain in Dr. Burns' report, and that is the addition of seventeen members, giving us 354. That is in error. That list of members is as of December 31, of course. We have had additional members come in, but some of the old members have not paid yet, who will pay any minute. We have now at present 311. We will have, before the year is out, the full number he read to you, about 335.

THE SPEAKER: That completes the reports of the councilors.

TABLE OF STATISTICAL DATA

COUNTY and DISTRICT	Members in County	Physicians in County	Eligible Nonmembers	New Members	Dead During 1936	Dropped Society	Meetings	Average Attendance	Papers Read
FIRST DISTRICT									
Carters	8	13	5	0	0	1	11	8	11
Cooke	11	15	2	0	0	0	7	70	3
Greene	17	24	4	1	0	0	12	11.5	16
Sevier	8	13	2	1	0	0	4	5	2
Sullivan-Johnson	40	51	5	4	1	3	10	32.4	20
Washington	42	30	0	2	2	0	12	19	21
SECOND DISTRICT									
Anderson	14	19	5	2	0	0	12	7	12
Blount	23	26	3	0	0	3	48	11.79	23
Campbell	25	28	3	6	0	1	10	7.4	8
Hamblen	15	15	0	0	0	0	12	13.5	2
Knox	143	189	10	3	2	3	39	63.5	40
Roane	12	19	8	0	0	0	11	7.5	11
Scott	7	9	2	0	0	0	2	5	0
THIRD DISTRICT									
Bradley	16	19	3	2	0	1	12	10	10
Franklin	9	15	6	0	0	0	11	6	10
Hamilton	125	178	15	11	4	1	38	42	54
Monroe	15	15	1	1	0	0	6	8	12
McMinn	13	21	21	0	2	0	8	10	8
Polk	7	11	11	0	0	1	1	3	0
White	9	9	0	0	1	4	12	8	12
FOURTH DISTRICT									
Cumberland	5	7	2	1	0	0	6	100	6
Jackson	3	5	2	0	0	1	1	4	0
Macon	7	9	3	0	0	3	6	5	0
Overton	4	8	4	0	0	0	5	4	0
Putnam	10	21	11	1	5	12	3	15	
Smith	7	14	4	0	0	2	11	5	8
Sumner	15	23	5	0	0	2	6	8	4
Wilson	19	19	0	2	3	1	19	9.9	6
FIFTH DISTRICT									
Bedford	16	17	3	0	0	0	12	10	11
Lincoln	14	19	18	1	1	0	12	10	12
Rutherford	23	25	2	0	1	1	12	16	12
SIXTH DISTRICT									
Davidson	268	397	70	17	3	0	36	60	34
Montgomery	12	27	12	0	0	0	1	11	1
Robertson	13	20	6	1	1	0	10	9	21
SEVENTH DISTRICT									
Hardin									
Lewis, Perry, and									
Wayne	24	40	12	3	1	0	11	20	44
Hickman	5	5	0	2	0	1	1	4	0
Murray	24	35	6	2	1	0	11	10	7
EIGHTH DISTRICT									
Carroll	13	6	2	0	2	12	7	36	
Fayette-Hardman	15	20	5	3	0	0	12	10	24
Henry	14	18	4	0	0	0	7	8	5
Madison	40	37	0	3	1	0	12	20	12
NINTH DISTRICT									
Dyer, Lake, and									
Crockett	37	32	8	4	1	2	33	29	32
Gibson	17	33	14	1	0	0	12	30	25
Haywood	12	15	3	0	0	3	12	8	20
Leadsdale	6	14	3	0	0	0	4	90	4
Obion	8	28	0	0	0	0	3	6	12
Tipton	9	16	6	5	0	0	4	5	
Weakley	13	20	7	1	0	0	4	10	4
TENTH DISTRICT									
Shelby	334	350	40	17	4	1	20	56	34



### THE ELECTION OF COUNCILORS

The terms of councilors for the following districts expire: Second, Fourth, Sixth, Eighth, and Tenth. We will now have the election of those councilors so they can reorganize. They can be nominated either from the floor or by the Nominating Committee. Nominations are in order for councilor of the Second District.

MEMBER: Dr. Bryan has a partial report, and I suggest he present that as it relates to the councilors.

DR. O. N. BRYAN: Mr. Chairman, your committee saw fit to nominate Dr. S. R. Miller of Knoxville for the Second District.

THE SPEAKER: Are there any other nominations? Do you want to vote by ballot or acclamation?

Upon motion regularly made, seconded and carried, the nominations were closed and the secretary was instructed to cast the ballot for Dr. Miller.

THE SPEAKER: Dr. Miller, you are re-elected.

Fourth District.

DR. BRYAN: Mr. Chairman, your committee saw fit to renominate Dr. J. T. Moore of Algood.

THE SPEAKER: Are there any other nominations? If not, I declare them closed. All in favor say "aye"; opposed "no." Dr. Moore is re-elected.

Sixth District, Dr. Edwards of Nashville.

DR. BRYAN: Mr. Chairman, your committee saw fit to nominate Dr. H. S. Shoulders, not because of the fact that Dr. Edwards has not done his work well, but because of a lot of other duties he has we thought we would try to unload some of those things.

THE SPEAKER: Are there any other nominations for the councilor of the Sixth District? If not, are you ready for the ballot? All in favor say "aye"; opposed "no."

Eighth District.

DR. BRYAN: Mr. Chairman, we nominate Dr. J. R. Thompson of Jackson.

THE SPEAKER: Are there any other nominations? If not, all in favor say "aye"; opposed "no." Dr. Jackson is elected.

Tenth District.

DR. BRYAN: Mr. Chairman, we nominate Dr. W. B. Burns of Memphis.

THE SPEAKER: Are there any other nominations? If not, all in favor say "aye"; opposed "no." We will have the same councilors we had last year. I don't think we could do any better.

The next is the report of the delegates to the

American Medical Association. Dr. E. G. Wood of Knoxville.

The next is the report of the delegates to the American Medical Association. Dr. E. G. Wood of Knoxville.

Dr. Wood read his report.

### REPORT OF AMERICAN MEDICAL ASSOCIATION MEETING, MAY 11-15, 1936

The eighty-seventh annual meeting of the American Medical Association, held in Kansas City, May 11-15, 1936, was extraordinarily successful from many points of view. The attendance was well beyond that anticipated. The weather during the entire meeting was ideal. The new municipal auditorium is conveniently arranged, beautiful in its appointments, and impressive in its appearance. The physicians and the people of Kansas City provided a welcome and an intimate type of hospitality quite distinctive for an occasion of this character.

The House of Delegates was particularly concerned in this session, as will be seen from its proceedings, with the relationships of physicians to hospitals, with the new experiments that are being undertaken in changing the nature of medical practice, with the status of prevention of conception, and with raising still further the standards of medical education and medical ethics. Its sessions were harmonious: the Board of Trustees and executives of the association received special commendation for their efficiency in the conduct of the affairs of the association. These affairs are ever widening in their scope and in the extent of the service rendered to the medical profession.

The opening general meeting was unique in several ways. First, the president-elect, Dr. Mason, who was to have been installed, was unfortunately so seriously ill as to be unable to attend the meeting. He was, therefore, by special action of the House of Delegates, installed in absentia. Messages of welcome were delivered by the two governors of Kansas and Missouri. The address of Dr. Mason was read by Vice-President Dr. Lynch of South Carolina.

The general scientific meetings attracted great audiences, particularly the lecture by Lord Horder on thyrotoxicosis and the motion picture exhibition by Dr. DeLee. Other distinguished guests of the association were Leon Ascher of Switzerland and Wolfgang Heubner of Berlin. Furthermore, the press, both local and national, surpassed all previous efforts in its coverage. Every service club, educational organization, and forum in the city opened its doors to medical speakers, and there were local and national broadcasts in profusion, indicating to the public the advances in medicine. Still, over the success, the brilliance, and the happiness of the Kansas City session lay the dark shadow of the serious illness of the president-elect, now installed as president of the American Medical Association—Dr. James Tate Mason of Seattle.

Dr. Van Etten, speaker of House of Delegates, in his address said: "It is not easy to see clearly through so many obscurant influences, but we must make serious efforts in this house to think courageously and independently toward whatever is best for American medicine and for the American people." Dr. McLester in his address as president of the American Medical Association to the house expressed his very high opinion of the American physicians, and said that the thing which above all others interests American medical men today is the preservation, unimpaired, of established methods of practice, methods by which American medicine has reached its present prominent position. He further spoke of the type of men to be admitted to medical schools as students, the work of the council on medical education and hospitals, and of the associated certifying boards, and the effectiveness of their work, of hospital insurance schemes, of standardization in the relationships of which the medical profession bears to certain governmental agencies throughout the country, and finally of the work being done by the Bureau of Health and Public Instruction. His closing remarks were a high tribute to Dr. Tate Mason. Following Dr. McLester's address, a message was read to the House of Delegates from Dr. Mason, being read by Dr. Brien T. King of Washington, in which he dealt with the subject of medical economics, and in his travels over the country divided medical men into three groups: group A included a number of men who felt that the American Medical Association needed more leadership and that very definite proposals should be made for the future of organized medicine; group B were men who believed that a change in the delivery of medical care was impending and probably necessary; group C, which carried definitely the largest number of physicians, felt that the Board of Trustees and the House of Delegates do recognize the medical situation which exists today.

Dr. West, in his secretary's report, said the number of members enrolled as of March 1, 1936, was 101,946, an increase of 2,410 over 1935. The number of fellows was 62,997, an increase of 1,591 over 1935.

Under the report of the Board of Trustees we find that the JOURNAL of the American Medical Association has been maintained at the high standard of recent years and is developing new features of practical value pointed toward the interest of the general practitioner. The paid circulation December 31, 1935, was larger by 4,344 than on the same date in 1934.

#### SUMMARY

The special *Journals* have been continued on their usual high plane.

The Board of Trustees views with some alarm the establishment of commercially published periodicals, in some special fields, which become the official organs of special organizations, involving

a compulsory subscription and thereby detracting from the subscribers and incomes of our own periodicals, which are not published in the interests of any special groups.

The Board of Trustees is being importuned for the publication of additional special periodicals, and the matter is being given consideration.

There was a small gain in the total circulation of the special *Journals*. The loss sustained in 1935 was \$28,004.70.

The numerous commendations and the increasing use of *Hygeia* in schools and as a source of public health information for many publications indicate that it is serving well the purpose for which it was established by the House of Delegates.

The cost of publication in 1935 was considerably larger than income received.

The library has extended the scope of the periodical loans and the package library service has maintained the Quarterly Cumulative Index Medicus at a high standard of efficiency, and has rendered increasing service to the headquarters office in the preparation of indexes and of reference work for the various department.

Thirty-two of the thirty-four journals of constituent state medical associations are represented in the Cooperative Medical Advertising Bureau. From the earnings of the bureau the sum of \$9,000 was distributed among these journals in amounts proportionate to the total amount of advertising secured for each journal.

The activities of the Bureau of Medical Economics for the year 1935 may be summarized under the following headings:

*Sickness Insurance.*—Continued study of the subject; collection of reports of foreign systems, statistical data, and comparison of vital statistics under these systems with nearly comparable statistics in the United States where possible; preparation of statements setting forth the characteristics of sickness insurance and distribution of reports and specially prepared articles on sickness insurance.

*Medical Service Plans.*—Continued study of county medical society plans; criticism of proposed plans; collection of data and descriptive material to show well-planned and balanced county society programs and the relative emphasis given to medical service plans; an effort to determine the measure of success attained by medical service plans in serving sick people.

*Distribution of Physicians in the United States.*—A study with fifty-four tables and fifteen charts to show, in part, the distribution of physicians according to population, type of practice, age, and geographic location of the physicians listed in the 1931 American Medical Directory.

*Medical Relations Under Workmen's Compensation.*—Revision of the original report on this subject to include the changes in workmen's compen-

sation laws and relations that were made in 1933, 1934, and the first half of 1935.

*Care of the Indigent Sick.*—Comment and suggestions offered on plans for the medical care of the indigent proposed by county and state medical societies.

*University and College Student Health Service.*—Completion of a study of University and College Student Health Service requested by the Board of Trustees in 1934 with summary and conclusion.

*Group Hospitalization.*—Attempt to define the term "group hospitalization," compilation of list of group hospitalization organizations; collection of data pertaining to the experience of this new method of providing hospital facilities for the sick; criticism of proposed plans and advice concerning the attitude of the American Medical Association toward such plans.

*Relation of Medical Ethics and Medical Economics.*—A report nearly completed, which endeavors to show the economic implications in the Principles of Medical Ethics, and a discussion of the ethical applications of the principles of medical economics.

*Debate on State Medicine.*—Preparation of special article for the official handbook of the National University Extension Association Debate Committee; distribution of publications of the Bureau of Medical Economics to medical societies, individual physicians, student debating teams, university extension departments, and high school, college, and public libraries.

*General.*—Travel: forty visits to thirty-three cities in eighteen states and the District of Columbia, covering a total distance of 38,610 miles. Speaking engagements and conferences: seventy-eight addresses and conferences with an attendance of 7,500, mostly physicians. Correspondence: 3,263 communications.

You understand this is a brief résumé. If this is going to be read by someone, the full report of the Board of Trustees can be had in the handbook.

#### PROPOSED PROGRAM

1. Continued study of state-managed medical systems of foreign countries and preparation of data and reports for the use of the medical profession.

2. A study of medical service plans to determine, if possible, the measure of success they have attained in making medical services more easily available to the people of low incomes.

3. Compilation of additional data on distribution of physicians in the United States and in foreign countries.

4. Preparation of new material to be used in revisions of the publications, "Medical Relations Under Workmen's Compensation" and "Care of the Indigent Sick."

5. Completion of study now in progress on group hospitalization.

6. Revision of publication, "Collecting Medical Fees."

7. A study of rural medical facilities.

8. Cooperation with Council on Medical Education and hospitals in furnishing material and suggestions to medical schools on the instruction of medical students in medical economics.

The report of the Judicial Council presented to the House of Delegates showed that the recommendation as made by the council and approved by the house in 1935, wherein there should be closer cooperation between the Judicial Council and the Council on Medical Education and Hospitals was working to a good end, and that the way had been opened for classification of and assistance in some of the problems of the general medical profession which came before it for advice, assistance, and decision. Among such questions are those of patients, charges and trials, group hospitalization, and association with cultists.

Under the heading of new business, many resolutions were introduced such as the practice of medicine being conducted by physicians and not by hospitals; entrance requirements to medical courses of educational institutions; condemning as unethical the listing of physicians by specialty in directories published by commercial concerns; resolutions on contraceptives referred to a special committee. This committee in executive session had the following recommendations to offer: (1) That a committee be appointed to continue a study of birth control and to report further to the House of Delegates; (2) steps should be taken by some responsible group to develop standards for judging contraceptive materials; (3) your committee desires to record its disapproval of propaganda directed to the public by lay bodies, and the support given such bodies by members of this medical profession. The house approved the first and third recommendation, but disapproved the second.

An important resolution was introduced by Dr. H. H. Shoulders of Tennessee, which was referred to and recommended by the Reference Committee on Amendments to the Constitution and By-Laws, relative to the appointment of a committee to propose an amendment to the by-laws providing for fitting recognition to fellows rendering distinguished service in the science of medicine. The question of state licensing boards not having taken proper disciplinary action against physicians reported to them by the United States Commissioner of Narcotics as having violated federal narcotic laws was duly discussed in executive sessions, and it was the opinion of the committee, and so adopted, that this matter be handled by the several constituent states, and that they seek further legislation if needed to permit the accomplishment of their end.

I think it is being planned at this time, and we are working to that end. I think many states, since the last session of the American Medical As-



sociation, have done likewise, but the time is coming, and the Federal Commission is taking cognizance of the fact that our licensing boards are not taking the proper steps in the case of these men who are indicted and serving terms for violation of the narcotic laws, doing abortions, and so forth, to revoke their licenses.

I was talking to Dr. Heyd and he said that in New York the moment a man is convicted of any of these things his license is automatically revoked. It isn't up to the physicians; it is a law. I wish we had such a law here.

The following officers were elected:

President-elect, Dr. J. H. J. Upham of Ohio.

Vice-president, Dr. Charles Gordon Heyd of New York.

Secretary, Dr. Olin West of Chicago.

Treasurer, Dr. Herman L. Kretschmer of Chicago.

Speaker of house, Dr. Nathan B. Van Etten of New York.

Vice-speaker of house, Dr. H. H. Shoulders of Nashville, Tennessee.

Next annual meeting place, Atlantic City, New Jersey.

THE SPEAKER: I don't think it is necessary to refer this to the committee. We will just accept it and file it.

Is there any new business?

DR. H. B. EVERETT: Mr. Speaker, in looking over the minutes of the meeting last year in Memphis, I noticed a discrepancy in the minutes and our by-laws and constitution. The minutes provide that Chapter IX of the by-laws be changed to read: "Dues be increased to six dollars." It is silent on Article X of the constitution, which provides ". . . shall be four dollars."

In the newly published constitution that was distributed, the second section provides for dues of six dollars, but the amendment as passed in Memphis last year is silent on this section.

I merely bring that to your attention that we may take such steps to correct this discrepancy as it might be worth while sometime in the future. If you had the original amendment and it provided for changing Article X, you would not have to wait for your year's notification, I mean if that was purely a typographical error. But if the amendment was only made to correct the by-laws and not the constitution, I see no way for us to change the constitution except by giving a year's notice, because it seems to me rather important that the constitution be changed, because you could not very well operate under a by-law in direct conflict with your constitutional provisions.

THE SPEAKER: Doctor, state that again, how do the minutes differ from the constitution?

DR. EVERETT: The minutes of your last year's meeting provide only for changing Chapter

IX of your by-laws and do not provide for the changing of Article X of the constitution.

In other words, Chapter IX, Section 1 of your by-laws provides that "an assessment of six dollars per capita on the active membership of the component societies is hereby made." Then it was changed to six dollars.

THE SPEAKER: It is six dollars on mine.

DR. EVERETT: That is right, but the minutes of your meeting are silent as to Article X of the constitution. If you will read Article X of your constitution, Section 1, it states, "The fiscal year of the association shall be April 1 to March 31. That has been corrected from January 1 to December 31. Section 2 of Article X of the old constitution says, "The annual dues shall be four dollars for each member, but no dues shall be paid by veterans or honorary members."

Now, the minutes of your meeting of last year, at the time of the changing your by-laws, do not show that Article X was changed in the constitution. That is according to the minutes of your meeting of last year, which you adopted yesterday. There are your minutes right there, which you can read. It only deals with Chapter IX of the By-Laws and is silent as to Article X of your constitution. I merely bring that to your attention, that something should be done to correct it.

THE SPEAKER: If it is not corrected, it will void the by-laws because they conflict with the constitution.

DR. EVERETT: It would void the by-laws, and the dues of six dollars could not be collected and, if collected, we might find ourselves in an embarrassing situation if somebody decided you collected your dues irregularly.

THE SPEAKER: To clarify matters, why can't we assume it is a clerical error and correct it now.

DR. EVERETT: That is what I am trying to get you to do.

THE SPEAKER: I think it is a clerical error. Certainly we wouldn't change the by-laws without changing the constitution. I think the quickest way to handle that is just to have a motion to the effect that the constitution be changed to coincide with the changes made in the by-laws, it being a clerical error.

DR. EVERETT: I wonder if it is possible that the secretary has the original amendment as filed last year. If so that might correct it, but if you change it now just on that presumption, I do not know whether that would hold, if it was contested, or not, but in the publication here there is certainly no reference made to Article X having been changed. I think we should give this matter some consideration so that we will not be in trouble about it a little later.

DR. A. F. RICHARDS (Sparta): To correct

that, cannot this adoption be revised so as to cover Article IX of the constitution and make it read "six dollars?" That could be done without changing your published constitution, just by making that amendment to the adopted minutes.

THE SPEAKER: That was the point I made, that we adopt the minutes with that correction.

DR. EVERETT: That would be Article X, Section 2 of the constitution.

Mr. Speaker, if it is in order, I will move that the minutes as adopted yesterday be corrected to the extent that they show Article X, Section 2 as changed to read six dollars.

THE SECRETARY: I second the motion.

The question was put to a vote and carried.

THE SPEAKER: The correction is so ordered. Is there any other new business?

DR. LAWS: I don't know whether I am out of order or not; if I am, you can tell me. Yesterday it was announced that this association had been running without a charter for seventy-two years. In order to get a charter, we will have to wait a year, won't we?

THE SECRETARY: No.

DR. LAWS: Each individual member of this society, in case of suit, is responsible for anything that would come up, because we are not an incorporated organization.

THE SPEAKER: That is a very important point.

THE SECRETARY: The question was the charter from the State of Tennessee, under the general welfare clause of the State of Tennessee. That was the only charter that we had in mind. Of course, individual units, societies, can exist without a charter from the state. It isn't absolutely necessary that we have a charter from the state, but when it comes to the legal matters of determining taxation and so forth, then the question of a charter enters.

DR. LAWS: I stand corrected.

DR. EVERETT: Mr. Speaker, was that referred to the Board of Trustees yesterday for their attention as to obtaining a charter?

THE SPEAKER: No, but it certainly would be their business.

THE SECRETARY: Mr. Speaker, it was recommended in my report that they be authorized to proceed to obtain a charter from the State of Tennessee.

DR. EVERETT: That will come up when the committee reports on your report. Is that right?

THE SECRETARY: It should.

DR. EVERETT: This should be dealt with, I think, before we leave here today.

THE SPEAKER: Dr. Bryan, will you make a note of that and call our attention to that fact? Dr. Shoulders has said that whether we pay this social security tax depends upon our charter.

Is there any other new business? If not, we will adjourn until two-fifteen this afternoon.

The meeting recessed at eleven o'clock.

### WEDNESDAY AFTERNOON SESSION

The meeting convened at two-twenty o'clock, Speaker Zemp presiding.

THE SPEAKER: Gentlemen, we will proceed to the reports of committees. Do you have anything you want to say for the Credentials Committee, Dr. Guyness?

DR. GUYNESS: No.

### REPORTS OF REFERENCE COMMITTEES

THE SPEAKER: Committee on Reports of Officers, Dr. O. N. Bryan.

DR. O. N. BRYAN: Report of Board of Trustees. Your committee has reviewed this report and recommends the approval of same.

DR. COOPER: I move that it be approved.

The motion was regularly seconded, put to a vote and carried.

DR. BRYAN: The next in order is the financial statement of the Postgraduate Instruction Committee for 1937. This is a financial statement. Your committee has reviewed this report and recommends the approval of it.

THE SPEAKER: What shall we do with it?

DR. EVERETT: I move it be adopted.

The motion was regularly seconded, put to a vote and carried.

DR. BRYAN: Next is the audit which your committee recommends be accepted and approved.

Upon motion regularly made, seconded and carried the report was accepted.

DR. BRYAN: Next, gentlemen, is the report of the secretary-editor for the calendar year of 1936. We recommend the approval of this report and urge that a charter be obtained.

THE SPEAKER: What shall we do with it?

DR. D. W. SMITH (Nashville): I move that we accept the report.

DR. EVERETT: I second the motion.

The question was put to a vote and carried.

DR. BRYAN: Our next report is that of our president, Dr. Williamson, and your committee wishes to express great appreciation for the most excellent manner in which he has conducted the affairs of the association during the past year. There are many valuable suggestions in his report, but a few need our attention.

The first is he states: "In a letter from Surgeon General Thomas Parran of the United States

Public Health Service several months ago he requested a state committee be appointed. The object of this committee was to advise with the profession and the Health Department as to the best methods of handling the treatment of venereal diseases in this state. This is a social as well as a medical problem, and in the appointment of the committee, this fact should be recognized. It seems to me this is a rather important committee and for that reason I have not appointed it. It seemed wise to me to delay the appointment in order to consult the trustees about it before doing so. As a suggested committee for this work, I quote the last sentence of Section 6, Chapter VIII of the by-laws: 'The House of Delegates directs the Liaison Committee to act in an advisory manner to the Board of Health as now constituted in the matter of formation of all policies.'"

Therefore, we would recommend that in all probability it is best to refer this matter to the Liaison Committee, because this is of vital importance to the whole country. If we as practicing physicians don't do something with this, the government is going to do something with it. So I think we are having first choice, and therefore we should make well of this opportunity.

The next point in his paper is the importance of having a Public Policy or Relations Committee, as pointed out on page 4. He states: "There should be appointed a well-chosen Committee on Public Policy or Relations separate from the Committee on Legislation. This committee has enough work. We should have a committee who will let the public know what the profession is doing. It now appears that all reduced mortality, morbidity, and medical progress is the result of public health work. The public must know that the profession is the origin of practically all medical progress. They now have no way to learn these facts. The press carries reports of municipal and government activities, but there is no report from our ranks."

We certainly think that this should have due consideration from the House of Delegates.

There is one other point that we felt should be called to your attention. It is an old point, but it is one we should never neglect, and that is, just because we appoint a Legislative Committee is no excuse for our quitting. In other words, we can be of great assistance to that Legislative Committee in many ways. Therefore, we should always be ready and willing and anxious to do so.

Your committee believes it rather unwise at present, because of financial reasons, to attempt to engage the services of a full-time secretary. We can see the need of the work he could do, but do not believe we could get the services of the proper type of man for the money we could spend.

THE SPEAKER: What shall we do with this report?

DR. D. W. SMITH (Nashville): I move that it be adopted.

The motion was regularly seconded, put to a vote and carried.

## REPORT OF COMMITTEE ON REPORTS OF COMMITTEES

THE SPEAKER: Committee on Reports of Committees, Dr. Percy Wood.

DR. PERCY WOOD: Mr. Speaker, we went over the committee reports, and we feel that the men who made those reports should be congratulated. They are functioning admirably and are doing their duties well. If it meets with the approval of the house, I will turn the reports over to the secretary later, as I have them up in my room.

THE SPEAKER: What shall we do with this report?

DR. COOPER: I move it be accepted.

The motion was regularly seconded, put to a vote and carried.

## SYPHILIS PROGRAM

THE SPEAKER: Right along the line of Dr. Bryan's report, it has been suggested to me that a committee be appointed, or that there be assigned to some committee that is already functioning, the matter of stabilizing the treatment of syphilis throughout the state. It seems that very often the doctors have patients who come to them. They ask them what treatment they have gotten, and the patients tell them some little treatment that doesn't amount to very much, that they received in some other place or some other city.

Dr. Pennington, who made the suggestion to me, thinks it would be very advisable for us to take some action, either appoint a committee or refer it to some committee already appointed, in order to establish over the state a systematic treatment of syphilis, in order to standardize it, you might say. I offer that suggestion to this house. If any one of you will make a motion to that effect, I will entertain it.

DR. C. M. HAMILTON (Nashville): I would like to make such a motion, that you appoint a committee to draw up a standard plan of treatment, and that the secretary be instructed to send a copy of these to each doctor or to publish it in the JOURNAL.

The motion was regularly seconded.

THE SPEAKER: Is there any discussion?

DR. O. N. BRYAN: That was the point I was trying to bring out in our discussion. I personally don't believe we will have anything come to this House of Delegates that is more important than this very thing. For years we have been having Cancer Committees. Personally, as I see it, we will do much more good here than with cancer. I am not trying to minimize the value of the Can-



cer Committee, but I do know the need of this committee.

DR. J. O. MANIER (Nashville): I had an opportunity this fall to talk personally to Dr. Parran about what he had in mind about this venereal problem. It has been stated in the report that has been made, that he wishes and is perfectly willing for the medical profession to conduct this, but that if we do not conduct it, then the Public Health Department of the United States is going to take it over and conduct it.

In the conversation, this fact developed, which seems to me is fundamental toward the approach to this problem. It is all very well to sit down and say we are going to have a committee, that, to a certain extent, we will endeavor to formulate a standard method of treatment and possibly try to carry that standard method of treatment back to the individual who has to administer the treatment. But, after all, the most important thing, it seems to me, about this is not only for doctors to know what should be done, but also to be able to do it. Therein comes the human equation over which we have no control.

You can sit down and take a man with syphilis, tell him what he should have and what should be given to him, but unless he cooperates with you, nothing can be done about it.

It seems to me that this committee, or some one of these committees that have been mentioned in connection with this, could very logically be instructed to try to develop throughout this state a considerable amount of information to the public to come to look upon the venereal problem, particularly syphilis, just as they look upon other types of infectious diseases.

That brings up the problem of the necessity, to a certain extent, of police power in handling the matter. The reason you can handle diphtheria and scarlet fever is simply because the proper authorities have the right to quarantine those people and spot them from contact with other people.

To obtain the objective that I have in mind, I think, first, the public has to be educated to the necessity of this thing, because legislative action is going to be necessary in the proper kind of way, to control the problem.

I think the finest thing any committee could do would be to organize a system of public education, get speakers to appear before luncheon clubs and women's clubs, and get the public aroused to the necessity of this thing to where, under the guidance of the medical profession, proper legal action could be taken or laws passed that would get syphilis out of the hush hush category and put it in as a public problem, so there could be some way (I have no very clear idea of what that way should be) to see that these people really were forced to take treatment, whether they wanted it or not. If we don't do that, then it is very obvious that the United States Public Health Department is going to take some action of that kind. It is far

better, I think, for us to educate the public and guide the thing than to let any other outside agency do so.

I want to suggest, Mr. Chairman, that this committee be instructed by this house to consider that phase of the problem as well as the treatment of it, because, after all, it is of no value to know how to treat the disease unless you can see that the treatment is properly applied. As we are situated now, we have no power of doing it.

DR. A. F. RICHARDS (Sparta): Mr. Speaker, it was my privilege just last week to address the Legion Post at Sparta on some subject of current interest and of national importance. I selected syphilis. I delivered a lecture to our legion along the line of its importance, its gravity and the worth-whileness to the public.

This question, coming up as it does now, strikes vitally the thing I had in mind, and the suggestion that Dr. Manier has just made relative to the educational end of it is the end of it that appealed to me the most of all. That was the brunt of my address to our legion last week, getting over information to them as to the gravity of the disease and the control of it.

Now the other point relative to this matter of standardizing the treatment. I am now forty-four years in the practice of medicine. Gentlemen, we haven't standardized anything yet that has stayed standardized. That is one of the cruellest things we can possibly do maybe. What would be standard today may not be standard next year. It is dangerous for us to teach the public and then have to unteach them in a short time.

I am sure that the idea of getting over a uniform treatment to the physicians who have to apply this treatment is a good idea, provided it is made flexible enough so as not to take away the individuality of the men who are administering the treatment. That is the very thing we are swearing against and cursing in public health—it is to do away with that hampering of the right of the individual physician to treat his cases and to keep anyone from intervening between the doctor and his patient.

As to the police end of it, doctor, that was a good suggestion. I have studied this matter pretty closely, and I have thought it over seriously. Unless you have some kind of police power, unless and until we can get control of that phase of taking away that professional etiquette that embarrasses a doctor when he asks for a patient, and give him the authority to pry into and secure the treatment of these cases, even suspicious cases, we haven't gotten very far with its application.

The time has been and is now when it is highly unethical for you to intimate to anybody that he should call on you for treatment. It has been highly unethical even for you to divulge the secrecy of the venereal disease.

My idea is we should call syphilis, syphilis;

gonorrhea, gonorrhea; go to the people with the facts. Every boy that leaves the high school should know what syphilis and gonorrhea are and the danger of its ravages. It is similarly important for every girl, when she reaches the age of eighteen or twenty, to stand an examination on syphilis and gonorrhea and know the dangers that are lurking there for her in the future, that she may safeguard herself.

This education is the important part of it, gentlemen. It should be known not only to the doctors, but to the public, and when we can eliminate this false modesty end of it and break our rigid ethics on this particular thing, to some extent, it is going to be easy to reach our goal.

I want to tell you that I am in favor of controlling syphilis, because it has to do with many diseases. In the little investigation I made a few nights ago, preparatory to my lecture, one author that I have in my library gave 112 diseases in which syphilis plays a part. Therefore, it makes it the most important of all of the diseases, so far as mortality is concerned. I could speak longer, but, gentlemen, it is an important thing, and you are dealing with a very vital thing right now. Those of you who are not made up on this matter, take time to think well before you take any steps toward the adoption of a rule.

THE SECRETARY: Mr. Speaker, I have had a number of communications with Dr. Parran and a few personal contacts. As has been said, two problems will be presented. One will be the question of public policy; another will be a technical, scientific matter. A third may be considered, and that is whatever policies as determined by the federal government will be administered through the State Health Department. Therefore, it has seemed to me that all questions of policy should be considered by the Liaison Committee which we created some years ago to deal with the State Department of Health in the matter of forming policies.

Then, if necessary, we might create a committee of specialists to formulate the technical treatments or carry forward some educational program calculated to prepare the doctors to administer the treatment in places where they may not be qualified.

I offer that as a suggestion. In the thinking I have done on the problems that have arisen up to now, my conclusions are that we have the Liaison Committee to handle all questions of the formation of plans and policies. That committee is already in existence, but we might create a new committee or a special committee for the purpose of handling the technical matters.

THE SPEAKER: You will notice I said either to create a new committee or refer it to a committee that is already functioning. I am sure the object of this motion is not to establish any obligatory standard and limit a man in his treatment

of any patient. It would simply be as a useful guide. I am sure many of us would welcome that, especially those who are not doing exclusively this kind of work.

A great many of the general practitioners would welcome a guide by which they could treat the patients, when they were not able to get the treatment of a specialist.

THE SECRETARY: Mr. Speaker, I might add it is my impression from Dr. Parran that they are not attempting in Washington to fix a plan that the state must follow, but that state departments of health in cooperation with the profession, if they can formulate an individual state policy that is satisfactory to them, they will be very happy. That is my reason for suggesting that the Liaison Committee handle it. That is already created, and they have had a lot of experience in the matter of policies, and it would be wise to refer the matter, that phase of it which relates to policies altogether; that would be legislative and otherwise.

THE SPEAKER: Of course, the standard established now would be according to the best knowledge that we have at the present time. It would change, certainly, because medicine changes. But it would be a useful guide to those who are not thoroughly proficient in the treatment of this disease.

The educational part of it is certainly, perhaps, the most important, but the most difficult part of the whole thing is making the patients take the treatment. They won't do it. They will come until the rash disappears, perhaps, and then they disappear; then you don't see them again for a long time. Most cities now, I believe, have the board of health requiring that all people serving food or handling food in any way, shape or form take an examination, and they insist on their being treated, if they are found to have any kind of venereal disease, and pronounced safe before they are turned loose again upon the public. That is being carried out now, I am sure, in all of the larger cities. So we will probably, then, just refer this to the Liaison Committee. We can appoint a committee on treatment and let them carry out the policies. We haven't voted on this.

DR. D. W. SMITH (Nashville): Of course, the profession does not want to be criticized for not doing something to promote the control of any infectious disease.

Only about three weeks ago in Nashville a speaker before a women's organization accused the profession of Davidson County and Nashville of not cooperating because we refused to report to the Public Health Department those cases which are known to be syphilitic. They request and urge that we report them, either by name, initial or number.

In connection with the police policy of this cam-



paign, I hope the committee will pay some attention and possibly urge that all doctors report all cases that come to their respective offices, to the health authorities, either by name, number, initial, any way they choose to report it. That statement of criticism was rendered by a professional man, a doctor.

THE SPEAKER: Are you ready for the question? All in favor say "aye"; opposed "no." It is so ordered.

Dr. Wood, the report of the Education Committee.

DR. R. B. WOOD: In addition to the report of this committee, I also have the report of Dr. Anderson, chairman of the Committee on Child Welfare, which I will read.

Dr. Wood read the report of the committee on Child Welfare.

#### REPORT OF COMMITTEE ON CHILD WELFARE

Your Committee on Child Welfare begs to present the following report:

Although the committee has held only one called meeting throughout the year, there have been numerous conferences with members of the Committee on Child Welfare, representatives of the State Health Department, and members of the Educational Committee of the state society. A survey has been made of similar projects as instituted in seven other states, none of which have seemed to completely answer the problems presented in Tennessee.

A tentative program of lectures and clinical instruction was worked out to begin in the spring of this year. However, due to the fact that the program on maternal welfare had already begun and to the feeling of those in charge of this program that a program on child welfare at the present time would be inadvisable, this tentative course of instructions in pediatrics has been held up. However, your committee is still making efforts to determine what type of instructions will be of most value to the profession when the Educational Committee sees fit to begin this work.

Respectfully submitted,

WM. DULANEY ANDERSON, Chairman.

Dr. Wood read the report of the Committee on Medical Education.

#### REPORT OF COMMITTEE ON MEDICAL EDUCATION

*Mr. Chairman and Delegates:*

You will recall that at the meeting of last year, this body approved the plan submitted by this committee for a postgraduate course in obstetrics. The plans briefly were for three full time employees, a lecturer, a field organizer and a secretary. The cost estimated at about \$15,000 per year was to be borne as follows: \$1,500 from the Tennessee State Board of Health, \$500 each from Vanderbilt and the University of Tennessee Medi-

cal Schools, about \$1,000 from the registration fees, and the remainder was, we hoped, to be obtained from the Commonwealth Fund.

Immediately following this meeting of last year Dr. Warr, as chairman, contacted the Commonwealth Fund, who were interested and promised to bring this matter before their board at the June meeting, provided a plan of organization suitable to the board was before them for consideration. This was done, and following the board meeting, this committee was notified that the plan was acceptable and a grant of \$12,000 was available, "subject to the appointment of a satisfactorily qualified clinician." A further \$12,000 was set aside for a similar use next year, provided satisfactory progress was noted and provided the same donations were received from other contributors.

The organization was perfected with Mr. L. B. Kibler as field director and Dr. Frank Whitacre as clinical director, and work was launched in January of this year. Further reports on this work will come from Dr. Reinberger of the Maternal Welfare Committee.

The Committee on Medical Education has continued to urge immunization against preventable diseases, providing lecturers, and demonstrations.

Contact with the chairman of the Committee on Cancer, on Physical Therapy and on Tuberculosis Hospitals has been maintained.

Discussion as to the advisability of postgraduate work on pediatrics was discussed, but finally postponed.

At its meeting of March, 1937, the committee voted its approval to radio broadcasts by the extension department of the University of Tennessee, including its health programs that were approved by the local medical society and a member of the Medical Education Committee.

The committee also voted to recommend to the House of Delegates that sufficient funds be appropriated to continue the postgraduate study in obstetrics. It was also voted to recommend to the Board of Trustees that the Committee on Tuberculosis Hospitals be named, the Committee on Tuberculosis, that in addition to present duties, it be instructed to promote renewed interest in the early diagnosis and treatment of tuberculosis and to make the effort to have each county society to have each year at least one meeting devoted to a discussion of tuberculosis.

It was also voted that the Cancer Committee be urged to secure each year a program on Cancer before each Medical Society.

In order to centralize and correlate the work of the various committees doing educational work, it would seem advisable that the chairmen of the various committees should constitute the Educational Committee and the chairman of this committee should be a man of broad education and experience with a zeal for furthering the spread of medical knowledge to professional and lay groups



without jeopardizing the finer senses and ideals of our profession.

**THE SPEAKER:** The regular routine would be to refer this to the chairman of the Committee on Reports of Committees. What shall we do with this report?

**DR. PERCY WOOD:** I move it be accepted.

The motion was regularly seconded, put to a vote and carried.

**THE SPEAKER:** Committee on Resolutions, Dr. Roberts.

#### **REPORT OF COMMITTEE ON RESOLUTIONS**

**DR. ROBERTS:** It was my impression that the report of this committee would be called for tomorrow morning, and I was anticipating writing up the report and presenting it at that time. However, the two resolutions that were handed to this committee consisted, first, of a resolution adopted by the trustees of the American Medical Association relative to the handling of public health affairs in the proposed reorganization of the federal government. This resolution sponsored the idea that all medical affairs that relate to the federal government should be handled by a physician with administrative ability. Your committee recommends that this House of Delegates endorse that resolution and be active in its support.

The other resolution that was handed to the committee is the one that was adopted by the executive faculty of Vanderbilt University. It had to do with the maintenance of the Army Medical Library in Washington, which in the recent past has been insufficiently financed in order to be properly maintained.

Your committee also recommends the endorsement and active support of this measure. The resolutions will be placed in the hands of the secretary.

**THE SPEAKER:** You have heard this report. What shall we do with it?

**DR. O. N. BRYAN:** I move that it be adopted.

The motion was regularly seconded, put to a vote and carried.

#### **REPORT OF REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS**

**THE SPEAKER:** Committee on Amendments to the Constitution and By-Laws, Dr. W. P. Wood.

**DR. W. P. WOOD:** We recommend the adoption of the two amendments as proposed, changing the number of trustees, making it six in place of three. Shall I read it all?

**THE SPEAKER:** It is short; go ahead.

**DR. W. P. WOOD:** "Article VIII, Section 1: The officers of the association shall be a president, a vice-president for each of the three grand divi-

sions of the state, a secretary, eight trustees, ten councilors, and a speaker of the House of Delegates. The retiring president and the speaker of the House of Delegates shall be trustees, and two trustees shall be elected from each of the three grand divisions of the state. The trustees shall elect one of their number annually as treasurer of the association. One councilor shall be elected from each Congressional District.

"Section 2. The president, three vice-presidents, speaker of the House of Delegates and the secretary shall be elected annually for one year. Two trustees shall be elected annually for three years. Five councilors shall be elected annually for two years."

That is practically the same as in our constitution and by-laws now.

"Article IX, Section 1. The Board of Trustees composed of the retiring president, the speaker of the House of Delegates and the six members of this association, elected as heretofore provided, shall select its own chairman, who shall be ex-officio treasurer of this association. The trustees shall have entire control of the publication, the policy and the editorial and financial management of the JOURNAL of the association. It shall be authorized and empowered to make all contracts necessary for the conduct of the association."

We recommend its adoption. That has to lay over a year.

#### **Amendment to By-Laws**

Dr. Wood then read the report of the committee on the amendment proposed by Dr. Patterson.

Your committee has considered the amendment to the by-laws proposed by Dr. Patterson of Chattanooga with reference to a full time executive secretary, layman or a physician.

It is our opinion that the adoption of this amendment would involve a radical change in the executive setup of our organization.

It would involve an outlay of money. The exact amount of which no one can estimate.

We see in it the possibility of harm to an organization which has functioned with efficiency.

The Board of Trustees possess the powers to employ additional help as necessary to carry on such functions as may be necessary from time to time.

For these reasons we recommend that action be deferred until more complete information can be obtained.

W. P. WOOD.

C. M. HAMILTON.

**DR. J. B. STANFORD:** The report handed you is the majority report. I would like to hand in a minority report.

Dr. Stanford read his report.

#### **Minority Report of Dr. J. B. Stanford**

After thorough, friendly and frank discussion of this matter among the members of the Committee on amendments to the Constitution and

By-Laws of the Association, we found that we could not agree. The majority report you have just heard. I believe that our disagreement was largely due not to the desirability of the change, but rather to its expediency at the present time. The majority of the committee believe that the association cannot afford to undertake the expense of such an additional office at this time. I am not in position to pass on this question, but am willing to leave the matter to the discretion of the Board of Trustees.

Therefore, I recommend that the amendment be adopted, and that the Board of Trustees be empowered to make the proposed change, when and if, in their judgment, the change is expedient.

Respectfully submitted,

JAMES B. STANFORD.

DR. STANFORD: Mr. Speaker, I would like to move the adoption of the amendment to the constitution.

DR. EVERETT: I second the motion.

THE SPEAKER: We are voting, as I understand it, first on the majority report.

DR. N. S. SHOFNER (Nashville): I would like to ask what are the advantages of having a full-time secretary? I haven't heard them explained. I would like to know.

DR. J. O. MANIER: I don't rise to answer that question. Is this matter open for discussion?

THE SPEAKER: Yes.

DR. MANIER: I think matters of this kind, before we take action on them, certainly should be very definitely considered. I am not at all sure in my own mind that it is a sound problem, from many angles, you might say, to chuck the bit back to the Board of Trustees. No one is going to deny the idealism of a full-time secretary, but there comes up into the consideration of this proposed amendment a very practical problem which even the minority report of the committee very frankly admitted they were not prepared to speak on, and that is the problem of the financial situation.

It happens that for some period of years I was treasurer of this organization. As a result of that, I had a fairly satisfactory insight into its finances. If, in adopting an amendment of this kind, it is found that under the present, existing financial setup, that cannot be handled, then we are practically putting in the hands of the Board of Trustees the necessity, almost, of occasioning an increase in dues.

It would certainly seem to me that in any matter that has even the possibility of increasing the dues at the present time, it should be the function of the House of Delegates to pass on that, in view of the fact that you are the legally deputized representatives of the profession. I hardly feel that the house has the right to chuck that responsibility to

the Board of Trustees along with other powers that have been given to it.

It would seem worth while, at the risk of boring you a little, to go a little bit into detail on finances. After having heard of the amendment last night, I took occasion to kind of refresh my mind about the finances of this organization. In rough, they are about as follows: The organization has between \$10,000 and \$12,000 in stable investments, bonds. At the present time, as is always true at this period of the year, there is a considerable amount of cash in the bank, something over \$3,000. That is always confusing to this body because they fail to realize that, so far as income from dues is concerned, close to ninety per cent of your income from dues has already accrued and been deposited.

You have at the present time something over 1,300 paid-up memberships. The state society's limit of membership has been something over 1,600. Against that, you have nine months and something more of expense for the rest of the year. The ordinary, stable expense is something over \$800 a month. That does not include the \$750 that is yet to be paid to the Educational Committee, nor does it in any sense include the multiplicity of incidentals that arise in relation to traveling expense, like telephone and various, sundry other things of that sort.

As to revenue for the rest of the year, in addition to the \$6,000 that you have, there will probably be, being very liberal, \$1,500 to \$1,800 for memberships and about \$3,500 from advertising, which, by resorting to a little arithmetic, only leaves you a margin of around \$1,500 to \$2,000.

I personally have always had this feeling about this organization: that it is like any other business; if it is going to functionate economically as a business, it must each year have a certain sliding scale of surplus to meet emergencies. There may be many emergencies arise during the present year. We face the problem of maybe national effort to inaugurate some type of social insurance which then may make it necessary for this body to organize flying teams of people to go all over the state.

I frankly feel the time has come in this organization where the men that you call on to make trips of that sort should not be expected to do that at their own expense. It can become a very expensive problem. I can speak of that from personal experience. It is very expensive if you do any amount of it.

I know that Dr. Williamson, who is sincerely and honestly interested in this (and my disagreement with him is just one of the matters of opinion) feels that the answer to the objections that I have raised can be met with the fact that such a secretary can increase the annual receipts of this organization without a raise in dues. His reason for that is based on several points. First, he feels that the membership can be increased beyond the 1,600-odd limit that we have had.

In reply to that, I think these figures should be

stated and considered. Even in the American Medical Directory you only show in the State of Tennessee about 2,800 so-called doctors listed. Bear in mind that that covers the colored population; that covers people who have long since retired from practice, and it cuts down that number to where there is no material number left to acquire.

I listened with a great deal of interest to the councilors' reports here this morning, sat back and checked up on the number of available physicians. If you took that number that was reported, as a fair cross section of what was left, the top number, even if you got them all, would be about 200 or 300 beyond what you have.

Some years ago this body had a census made. I happened to serve on that committee with Dr. Dixon and Dr. Shoulders. It not only made a census but the association spent a certain amount of money in putting men on the road and endeavoring to try to interest every ethical, available doctor in becoming a member of the Tennessee State Medical Association. It was through those efforts that we built the thing up to about 1,600 members. We have never been able to go beyond that.

I think it is a very serious problem that you confront in a matter of this kind. While I have been falsely named by my friend Dr. Battle Malone as Hitler, at the same time I am occupying just the opposite position of Dr. "Mussolini" Malone. I want to be conservative about the matter, and I don't see the immediate emergency of having to go off and do something that might not work out right.

I think this thing should be given careful thought. I certainly do not think it should be put in the hands of the Board of Trustees. It is unfair to them to chuck the bit to them to act for the entire membership. This body was elected, with authority delegated to you, and it is your problem. You have no right to pass it off onto someone else.

DR. A. F. COOPER: With all due respect, I would like to call the attention of the chairman to the fact that there is no motion before the house except on the majority report.

THE SPEAKER: We know that.

DR. COOPER: Dr. Manier has brought up several strong arguments for the acceptance of the minority report. This is not a political fight. There is no attempt at disruption, no reflection on Dr. Shoulders, in any sense. As Dr. Williamson said in his report, and as Dr. John B. Steele said last year, there is nothing personal about it.

There is no emergency now, Dr. Manier. The emergency arose several years ago. We do need a full-time secretary. Dr. Shoulders can't give his entire time to it; you can't; I can't; nobody else could do it. But we do need a man who can do it. The very reason we need him is for some of the reasons you mentioned. That flying squadron idea is one. Dr. Shoulders can't drop his business and

go all over the state in the interest of the association, in opposing social insurance, social security or anything else.

One of the provisions in the constitution and by-laws is one which Dr. Shoulders has not been able to carry out; he just hasn't been able to do it, and that is that he shall visit each councilor district at least once each year, and oftener, if advisable. He can't do that. He has to make a living. We can't pay him enough to give his whole time to it and give up his personal work. It just can't be done. But if you employ a full-time secretary, retaining Dr. Shoulders as editor, an able editor, an excellent editor, possibly doing away with the assistant editor, by which you will cut \$1,800 off the expense, I am told we could also do away with the rental of the offices now occupied by the JOURNAL headquarters in Nashville, that free office space could be gotten in the Memorial Building. I won't refer to the fact that maybe because we would be there, the state would influence us. It wouldn't be that way at all. I don't see how that would necessarily follow, by any means.

If we have \$12,000 cash on hand, it looks to me as though we can easily, financially employ a man who can give his entire time to the duties of the office. The selection of that man is another matter entirely. That could be delegated to the trustees, to a special committee appointed for that purpose. It doesn't make any difference about that. That would be the thing that would have to be gone into very carefully, of course.

The question before the house is the adoption of the minority report. I think the minority report expresses the need of a full-time secretary, very clearly. The fact Dr. Stanford didn't know the expenses involved is immaterial. That is beside the point. The treasurer of the association can very easily tell us about the finances and the resources of this association.

When you cut down expenses, and you already have a considerable fund on hand which may have to be used for purposes which may or may not arise in the future, it looks to me as though at present we are financially qualified to employ a full-time secretary.

DR. MANIER: Mr. Chairman, might I ask Dr. Cooper one question? Is it your idea that it would be proper, in employing such a person, to infringe on the existing surplus of \$10,000 to \$12,000?

DR. COOPER: If necessary. What are you saving it for?

DR. MANIER: What are you going to do when you use it up?

DR. COOPER: When you use it up, that is another thing.

DR. MANIER: That is the thing that came up in this house with regard to the history that we had five or six years ago.



DR. COOPER: The only thing that could be done under those circumstances would be an increase of advertising in the JOURNAL and an increase in dues. Of course, you know and I know and everybody else knows that the dues to the Tennessee State Association are probably the lowest in any unit. They are ridiculously low.

DR. MANIER: I am perfectly in accord with that, but I think you have to raise them gradually. We jumped them up two years ago. I don't believe the average man who pays dues right at the present time is going to be interested in having his dues raised in order to have a full-time secretary. That is the reason I take the position that this body, elected by the membership, ought to settle that matter. I am opposed to its being turned over to the Board of Trustees or anybody else.

The question in my mind is whether that type of thing ought not to be considered on the floor, just as we had to consider the reverse of it six years ago, on the floor. I don't believe you would find that the membership of this organization, if you went on the floor with it, would support anything of that type.

DR. COOPER: It is on the floor now.

DR. C. M. HAMILTON: Mr. Speaker, Dr. Cooper made the statement that we had \$12,000 that we could use. He also stated that we had the lowest dues of practically any state in the Union. You must remember that this \$12,000 he spoke of is in investments to help keep the dues down. If you dispense with these investments, then you will naturally have to increase the dues.

I am like Dr. Manier, I don't think this responsibility should be placed in the hands of the trustees. This is your responsibility. It is too big a job for the trustees.

Dr. Williamson made the statement yesterday that a full-time secretary could pay his way; that is, he could get enough revenue from the increase of membership, an increase in advertisements, to make up the difference.

If you will look over the records of the other states that have full-time secretaries, you will see that they have not paid their way. The dues for California are \$15. The dues for West Virginia are \$10. West Virginia does not publish a Journal by itself. It publishes it in connection with another state. I think the suggestion is ideal. I think it couldn't be any better. I don't believe we can stand it without raising the dues. We just raised the dues two dollars last year. If you want to increase the dues four dollars more and make it ten dollars, I think it is a wonderful plan. It is just a question of whether you want to do it. As to the motion, I don't know whether it was seconded. Dr. Wood made a motion.

DR. SHOFNER: I asked a question before and I haven't heard it answered yet, and that is what are the advantages of having a full-time secretary.

The only possible advantage I have heard so far is that the present secretary doesn't have time to visit each component society. If that is the only objection, then I should think that could be very easily overcome by giving him an additional amount of money to make those trips. That is the only point I have heard raised, and that I can see has any bearing on having an advantage over the present way.

DR. W. P. WOOD: I moved that mine be taken up here, and he seconded the motion.

DR. RICHARDS: I seconded the motion.

THE SPEAKER: It doesn't make any difference as to the motion. We will explain the vote in a minute, which one they may vote on.

THE SECRETARY: Of course, that is a new consideration, the placing of the headquarters office in the War Memorial Building. Of course, I never heard that that space would be available, but if available it would create a tremendous complication in the matter of administration. If I may be permitted to do so, and if I can be regarded as speaking in an impersonal way, I will say a few words. With my private office in the Doctors' Building and the editorial offices over yonder in the Memorial Building, there would be complications and tremendous difficulties.

As was said, we might abolish the office of assistant secretary. Some years ago that was the idea. I would say to this body now that every councilor district, or a vast majority, have been visited by one or the other of us. That was the idea then of having this assistant secretary, who would be available, more available to transact all such other duties right along continuously.

Of course, that salary was increased to where it would justify someone to devote his entire time, but it was found that the traveling expense, as Dr. Manier stated, and all the expenses involved in travel were hardly compensated for by the gains in membership as a result of the travel. That would be touching on the very point that Dr. Cooper raised about the abolishment of one office to create another one, and changing the whole plan of administration, from the standpoint of office space, telephone, et cetera.

THE SPEAKER: Is there any other discussion?

DR. STANFORD: I am afraid Dr. Manier hasn't read that proposed amendment or hasn't heard it read. I gathered from his remarks that he thought we were making it mandatory on the Board of Trustees to make such a change. If you read that you will find that it is not true, that we are not making it mandatory, but we are making it possible for them to do that if they think it is wise.

THE SPEAKER: But you are putting it up-

to the trustees, doctor. We will have to do it sometime or another.

DR. M. S. ROBERTS (Knoxville): It seems that the minority report places the responsibility on the Board of Trustees or, rather, it empowers them to bring about certain expenditures and, at the same time, it does not provide a way to finance it.

According to this minority report, the Board of Trustees would be at liberty, it seems, to involve the association in an indebtedness in order to carry this out if they so saw fit.

I don't believe it is the wish of the House of Delegates that the Board of Trustees should create any indebtedness. I don't believe it is the wish of the state association that their dues at the present time be raised.

I listened to the reports of the councilors of the state. It seemed to me that, in the main, they were doing an efficient work in trying to secure the additional 200 or 300 available members, and they are living in the districts where these men live. They haven't through their efforts been able to secure this desired result, so it isn't reasonable that, if Dr. Miller living here in the Second District and as active as he is cannot enlist the interest and secure the additional members in the Second District, all of them knowing him as they do and his interest in organized medicine, and he knowing them as he does, and the influence that he has on the profession here—if he could not secure their interest and get them enlisted in organized medicine, one from Nashville couldn't do it.

I can hardly see where it will be possible for this office to be self-sustaining. There may be a time when I would change my mind about it, but I heartily approve of the association's present policy of staying financially sound. Even though our assets are not very much, it makes me feel very good to know that we are not in the red.

Personally, I wouldn't be willing to authorize the trustees of this association to put us in the red, even though I don't believe they would be inclined to do it. Until such time as this association would have time to discuss the matter and agree among themselves that their dues should be raised to the point where it would amply justify this expenditure, I don't think we ought to authorize the trustees to do it.

THE SPEAKER: Is there any further discussion?

The question was called for.

DR. RICHARDS: Before this motion is put, before the vote is taken, I would like to be cleared up a little on just how this motion is going to be put, so that we may know, when we cast our vote, just where we are in this matter. You have this thing crossed so that a man could easily vote wrong on it.

THE SPEAKER: I will make it plain. The motion before the house is the adoption of the minority report. If you want to vote in favor of that report, it means that you are voting for a full-time secretary. If you vote against that report, you are voting for things to remain just as they are now. In other words, when I put this motion, if you vote "aye," you are in favor of a full-time secretary; if you vote "no," you are not in favor of it. Is that plain to everybody? If you vote "aye," you are in favor of it; if you vote "no," you are against it. Are you ready for the question? All in favor of the motion, say "aye"; all opposed, "no." It sounds to the chair like the "noes" have it. You will please rise and be counted. All in favor stand up; those opposed will stand up. The motion is lost.

Is there any new business?

#### DR. AYRES' RESIGNATION FROM THE STATE BOARD OF HEALTH

DR. AYRES: This is not a matter of new business, but a point of personal privilege. As you know, by the grace of this body I am now a member of the State Board of Health. The work in my special line makes it absolutely prohibitory for me to attend to the duties of that office as they should be attended to. I accepted it in the beginning because I wanted to help to write the policies and help to start the thing off, but I have found in the two years that I have been a member that I haven't been able to attend the duties as they should be attended to. Therefore, I am resigning from the office and have asked the Nominating Committee to name three men from our part of the state for citation or certification to the governor as my successor.

I am just saying that by way of explanation to this body, whose creature I am, as to why I am resigning. The work has been very pleasant. We have worked in harmony. I feel that the board is doing a good job, but I do believe that they should have a representative from our end of the state who can attend to the job.

THE SPEAKER: Your work has been deeply appreciated by this body, and we regret that you have to resign.

DR. O. N. BRYAN: As chairman of the Nominating Committee, that is a point we haven't been able to clear up. There are two men, as I understand it, from West Tennessee, Dr. Ayres and someone else.

In West Tennessee should we come before you with six names or three names?

#### APPROPRIATION FOR POSTGRADUATE INSTRUCTION

DR. C. M. HAMILTON: Six, three for each one. Mr. Speaker, last year this body authorized the Board of Trustees to appropriate \$1,500 to the Postgraduate Instruction Committee. As I

understand it, this committee is likely to function for another year. I think this body should pass on that problem, as to whether we should appropriate another \$1,500 to this committee. Won't we have to give them another \$1,500?

DR. MANIER: You will have to appropriate part before this body meets again.

DR. HAMILTON: I would like to settle that question.

DR. THOMPSON: I move that we appropriate \$1,500. I happened to have the privilege of having the course in West Tennessee, and I think it is a wonderful thing.

The motion was regularly seconded, put to a vote and carried.

### MEDICAL PRACTICE ACT

DR. H. W. QUALLS (Memphis): First, I want to thank the Legislative Committee for their report and the work they have done and are doing in trying to get through legislation. I realize that the State Board of Medical Examiners have received considerable criticism from a number of angles because they did not revoke the licenses of quack doctors and dope fiends in this state. That is not because we did not want to revoke the licenses of those men; it is because we have such an antiquated Medical Practice Act we cannot revoke them.

It may interest you to know that at the regular annual meeting in July, in Nashville, forty-five doctors were summonsed for violating the Harrison Anti-Narcotic Act. All these men had been convicted by the federal government. We had a member of the attorney general's office, an assistant attorney general, there with us.

He advised us, after trying these men and securing all the evidence, that we did not have the legal right to revoke their licenses because of a decision of the Supreme Court on one Benjamin L. Friedman a few years ago. His license was revoked. He carried the case to the Supreme Court. After he was let out of prison, the State Board of Medical Examiners was forced to issue a new license.

By the way, it may interest you to know that that same fellow also went before the court and had his name changed to Wallace and forced the State Board of Medical Examiners to issue a license under the new name of Wallace. He has since been convicted by the narcotic board.

I would like to urge every one of you to see your senators and your representatives and urge them to support the bill that is coming up. The reason we haven't made more effort to revoke licenses is because the State Board of Medical Examiners have very little funds with which to work. It may interest you to know that the Nurses' Board gets about three times as much every year as the State Board of Medical Exam-

iners with which to work. The Dental Board gets about three times as much. I will explain how they do that. They do that because they have to register each year, and that registration goes to the board. That is the reason they have more money. You can't fight quacks, men who violate the Medical Practice Act, without some funds and without some teeth in the law. The proposed amendment does increase the funds for the Board of Medical Examiners, and it does put more teeth into the law where we may be able to do something.

Just in case we are not able to pass the act that all of us want to pass, I wonder if I would be asking too much to ask the state association to appropriate some fund or hire some attorney to get an injunction, or in some way try to stop these men from their illegal practices. That is a thing I would like to bring before this body.

DR. EVERETT: Mr. Speaker, I think this is a matter that is very important. I believe it is one that should be given some consideration by this house. There are a number of men in the state who have been convicted of one crime or another and are now serving a term in prison. It seems to me that we should do something to help the Medical Board of Examiners if we can.

I recall the case that Dr. Qualls referred to. I do not know how vigorously the defense of the board's ruling was prosecuted in the court, who handled it: It does seem to me that, in a case of that kind, if our Medical Practice Act means anything at all, we ought to be able to stop people of that character from practicing medicine.

Take in our county, Shelby, I think there are five or six men who were practicing medicine there and are now in prison. We have one man there, that I have in mind. The federal court revoked his narcotic license and sent him to prison, and then paroled him. He is now practicing medicine in Shelby County just as though he had not been bothered, except that his narcotic privileges have been revoked.

This is a matter that involves all of us, all over the state. It certainly is a matter to which we should pay some attention.

The general public do not know and do not distinguish those men from the rest of us who are trying to practice medicine in a legitimate way. I don't know just how we should go about it, but I do think it is our business to assist the Board of Medical Examiners in some way, if it is possible to do so, either by employing an attorney to help prosecute these matters before the board and in the court, if necessary, or to sustain their rulings when they are appealed from.

DR. W. P. WOOD: Until we get a new law, I don't think there is any use in doing anything because the state has no law, as the gentleman said, that has any teeth in it, that can convict him.

To my sorrow, I had a gentleman down before



the board. I took quite a little time in looking up all the statutes. There was no law; we just haven't got any. We have to start at the beginning. It is like the charter of our state society; it has been forgotten; it is lost; it has gone with the wind. They are just going to have to go back and do some things over. Undoubtedly, if they put a bill before the legislature that would be sufficient to handle these people, that would give the state board some power to do something. Until something is done, the state board has absolutely no power.

**THE SECRETARY:** Mr. Speaker, I hesitate to prolong the session but I would like to say this, that, as Dr. Edwards said, the members of this house are probably in better position to contact the senators and representatives now to favor the passage of the bill now pending, which will clear up all of the difficulties.

I would urge this action for another reason, which is this: If we do not pass a law and act upon the matter of dealing with addicts and with doctors who violate the National Narcotic Law, the national government, in turn, will proceed to issue licenses or permits for the use of narcotics from Washington only to those whom they see fit to issue them to. Up until now the federal government has honored the license of every doctor in any state. In other words, they recognized the legal status of the doctor created by the state law. If we do not clean our own dirty linen, the national government will remove from us the privilege of obtaining a license to prescribe narcotics, by going down to the Internal Revenue Department, or writing in.

**THE SPEAKER:** The only thing we can do right now is to contact our representatives and senators and urge them to pass this law that is going to be presented at the next meeting of the legislature. If we will all do that sincerely and earnestly, I think we will have this law passed, and then we can get rid of these criminals that now owe their respectability only to the fact that they are members of recognized medical societies.

**THE SECRETARY:** There is a considerable fund in Nashville now to defeat that bill; that was the information I received.

**DR. AYRES:** I don't want to prolong this meeting, but I think this is of a great deal of importance. It seemed that they were all a good deal confused as to what the rank and file of the society over the state desired in regard to this matter we have just been discussing, as to the full-time secretary. I don't know that a motion would be in order to this effect, but if it is in order, I would like to make a motion that this matter be referred to the trustees for study and report back, that they be asked to study the question and report back to the next meeting of the association, and that, before the next meeting of the association, the membership be notified, when the call is made for this meeting, to instruct their delegations on

this point. Then we can come in here knowing what the rank and file want. That would be better than carrying it before an open meeting, because the rank and file of this association doesn't come to the meeting.

With your permission, Mr. Speaker, I would like to make a motion to that effect, that the Board of Trustees, or this same committee, some committee that would have time to make the investigation, investigate as to the expense and be able to give that information, and that the members of the component societies be notified to instruct their delegations as to their wishes in this matter.

**THE SPEAKER:** Doctor, what is your motion?

**DR. AYRES:** My motion is that notice be sent out in due time to the component societies to have their delegations instructed on the point of the creation of this office of a full-time secretary-manager.

The motion was regularly seconded.

**DR. A. F. RICHARDS:** Mr. Speaker, with all due respect to the gentleman and his idea—he seems to have good intentions but I think he is missing his mark, and it is absolutely useless. Here we are, representing our counties from all over this state right here and now. If we are not getting the information here and now that we can report to our county societies and be instructed by the time we meet again, how in thunder is the Board of Trustees going to get it done?

I think that the motion will avail nothing. It is very clear that the matter is before us. We have got it deferred, and we will certainly give it consideration. Our county societies, when we return home, will be instructed when we report this meeting in detail. If they have a mind on the matter, we will know what it is, and we will come back next year instructed on this matter and ready to vote "yes" or "no." I think we are in ample shape to leave it alone.

**THE SPEAKER:** Is there any other discussions? Are you ready for the question?

The question was called for, put to a vote and carried.

The meeting recessed at three-fifty o'clock.

#### THURSDAY MORNING SESSION

The meeting convened at nine-thirty o'clock, Speaker Zemp presiding.

**THE SPEAKER:** The meeting will please come to order.

The by-laws provide that the first thing on the third day will be the report of the Nominating Committee and the election of officers. We will now hear from the Nominating Committee, Dr. Bryan; we will take them one at a time.

#### REPORT OF COMMITTEE ON NOMINATIONS AND ELECTION OF OFFICERS

**DR. O. N. BRYAN:** Nominations for president: Dr. George C. Williamson, Columbia, Tennessee. Dr. J. M. Oliver, Portland, Tennessee. Dr. J. O. Walker, Franklin, Tennessee.

THE SPEAKER: You have heard the nominations. Are there any others? Anybody has the privilege of nominating from the floor. If there are no other nominations, you will prepare your ballots. The by-laws provide that we nominate three.

I will ask Dr. Manier, Dr. Roberts, and Dr. Lancaster to collect the ballots.

The delegates proceeded to cast their ballots.

THE SECRETARY: The result of the ballot is: Dr. Williamson received twenty-seven votes and Dr. Walker received one.

THE SPEAKER: I hereby declare Dr. Williamson elected as our next president.

DR. BRYAN: For vice-president:  
West Tennessee: Dr. F. K. West, Rossville, Tennessee.

THE SPEAKER: Are there any other nominations? If not, will somebody move that he be elected by acclamation?

DR. STANFORD: I move that he be elected by acclamation.

DR. MANIER: I second the motion.  
The question was put to a vote and carried.

DR. BRYAN: For Middle Tennessee:  
Dr. Jack Witherspoon, Nashville, Tennessee.

THE SPEAKER: Are there any other nominations?

DR. LAWS: I move he be elected by acclamation.

DR. C. M. HAMILTON: I second the motion.  
The question was put to a vote and carried.

DR. BRYAN: For East Tennessee:  
Dr. Andrew Smith, Knoxville, Tennessee.

THE SPEAKER: Are there any other nominations?

Upon motion regularly made, seconded and carried, Dr. Smith was elected by acclamation.

THE SPEAKER: That gives you a president and three vice-presidents.

DR. BRYAN: Speaker of the House of Delegates:  
Dr. E. R. Zemp, Knoxville, Tennessee.

THE SECRETARY: Are there any other nominations?

DR. LAWS: I move that nominations be closed.

DR. S. R. MILLER: I move that the ballots be closed and the secretary be instructed to cast the ballot for Dr. Zemp.

The motion was regularly seconded, put to a vote and carried.

THE SECRETARY: The Chair announces that Dr. Zemp is elected.

THE SPEAKER: Gentlemen, I certainly appreciate this honor very much. I take my job seriously, and I certainly try, from the bottom of my heart, to rule this body impartially and with fairness to all. (Applause.)

DR. BRYAN: For secretary-editor:  
Dr. H. H. Shoulders, Nashville, Tennessee.

THE SPEAKER: Are there any other nominations?

DR. S. R. MILLER: I move that the nominations be closed and the chairman cast the unanimous vote for Dr. Shoulders.

The motion was regularly seconded, put to a vote and carried.

THE SPEAKER: I take great pleasure in casting the unanimous vote of this House of Delegates for Dr. H. H. Shoulders as secretary-editor for the ensuing year.

DR. BRYAN: For delegate to the A. M. A.:  
Dr. H. B. Everett, Memphis, Tennessee.

For Alternate: Dr. E. C. Ellett, Memphis, Tennessee.

THE SPEAKER: Are there any other nominations?

DR. STANFORD: I move that the nominations be closed and the secretary be instructed to cast the unanimous ballot.

DR. MANIER: I second the motion.  
The question was put to a vote and carried.

THE SECRETARY: The secretary has pleasure in casting the ballot of the house for Dr. Everett as delegate and for Dr. Ellett as alternate.

THE SPEAKER: For how many years?

THE SECRETARY: Three.

DR. BRYAN: For trustee:  
Dr. C. M. Hamilton, Nashville, Tennessee.

THE SPEAKER: Are there any other nominations?

DR. COOPER: I move that the nominations be closed.

The motion was regularly seconded, put to a vote and carried.

THE SPEAKER: I will presume, if you don't say so, that the secretary is to cast the vote.

THE SECRETARY: I have pleasure in casting the ballot of the house for Dr. Hamilton as a member of the Board of Trustees.

DR. BRYAN: The next is the State Board of Medical Examiners. Do not confuse this with the State Board of Health. This is for when, as and if the legislation is passed that is now in the legis-

lature. Dr. Edwards said they were doing all they could to get it passed. We felt that we should have this setup beforehand and be ready in case it is passed.

It provides, by the way, that we should have five men named from each section of the state, from which I believe they select two.

#### For East Tennessee

1. Dr. T. B. Yancey, Kingsport, Tennessee.
2. Dr. J. H. Keeling, Knoxville, Tennessee.
3. Dr. Frank Harris, Chattanooga, Tennessee.
4. Dr. R. B. Wood, Knoxville, Tennessee.
5. Dr. C. W. Friberg, Johnson City, Tennessee.

#### For Middle Tennessee

1. Dr. J. K. Blackburn, Pulaski, Tennessee.
2. Dr. Monroe Brown, Fayetteville, Tennessee.
3. Dr. David W. Hailey, Nashville, Tennessee.
4. Dr. J. O. Walker, Franklin, Tennessee.
5. Dr. J. S. Freeman, Springfield, Tennessee.

#### For West Tennessee

1. Dr. H. W. Qualls, Memphis, Tennessee.
2. Dr. J. A. McIntosh, Memphis, Tennessee.
3. Dr. J. A. Price, Dyersburg, Tennessee.
4. Dr. Neuton Stern, Memphis, Tennessee.
5. Dr. G. L. Williamson, Jackson, Tennessee.

THE SPEAKER: Are there any other nominations? Those nominations, you understand, are to fill the place of any vacancies that may or do occur on the Board of Medical Examiners. Isn't that right?

DR. BRYAN: That is right.

THE SPEAKER: All in favor of these nominations will say "aye"; opposed "no." That list will be handed in.

DR. BRYAN: Next is the State Board of Health. We have to name three for each member of the state board. There are two members from each grand division of the state.

#### For East Tennessee

- Dr. C. P. Fox, Sr., Greeneville, Tennessee.  
Dr. Tom Phillips, Rockwood, Tennessee.  
Dr. E. A. Guynes, Knoxville, Tennessee.

- Dr. W. K. Vance, Jr., Bristol, Tennessee.  
Dr. R. C. Kimbrough, Madisonville, Tennessee.  
Dr. J. B. Phillips, Chattanooga, Tennessee.

#### For Middle Tennessee

- Dr. E. M. Fuqua, Pulaski, Tennessee.  
Dr. W. G. Kennon, Nashville, Tennessee.  
Dr. J. H. Jones, Mount Pleasant, Tennessee.

- Dr. John M. Lee, Nashville, Tennessee.  
Dr. D. W. Smith, Nashville, Tennessee.  
Dr. R. B. Gaston, Lebanon, Tennessee.

#### For West Tennessee

- Dr. J. R. Thompson, Jr., Jackson, Tennessee.

- Dr. John Jackson, Dyer, Tennessee.  
Dr. Walter Oursler, Humboldt, Tennessee.

- Dr. W. R. Blue, Memphis, Tennessee.  
Dr. Webb Kcy, Memphis, Tennessee.  
Dr. H. B. Everett, Memphis, Tennessee.

THE SPEAKER: That is to be for the Board of Health.

DR. BRYAN: If you notice, we are mentioning two after each name. I am afraid it is confusing, the way we have given it. For instance, I gave Dr. Thompson's name. His term just expired. He heads the list. Of course, Dr. Ayres resigned so Dr. Blue took his place. Up in Nashville, Dr. Fuqua was on the board, and I mentioned two others under his name, still including him; with Dr. Lee here, with two under his name. But to take this and read it, I am afraid it will be rather confusing.

THE SPEAKER: Are there any other nominations?

Upon motion regularly made, seconded and carried, the nominations were closed.

DR. BRYAN: The next is the State Board of Nurses.

#### For West Tennessee

- Dr. John J. Shea, Memphis, Tennessee.  
Dr. Paul Baird, Dyersburg, Tennessee.

#### For Middle Tennessee

- Dr. W. F. Fyke, Springfield, Tennessee.

#### For East Tennessee

- Dr. Ralph Monger, Knoxville, Tennessee.  
Dr. William W. Sheridan, Chattanooga, Tennessee.

THE SPEAKER: Are there any other nominations?

Upon motion regularly made, seconded and carried, the nominees were elected.

THE SPEAKER: I will appoint as a committee to conduct the president before this august body, Dr. Hiram Laws, Dr. Stanford, Dr. Lancaster, and Dr. Joe Wright.

#### SYPHILIS PROGRAM

Yesterday is was moved that I appoint a committee to which to refer the matter of the standardization of the treatment of syphilis or venereal diseases. I am going to refer that to the Liaison Committee.

The audience arose and applauded as President-Elect Williamson was escorted to the platform.

THE SPEAKER: Gentlemen, here is your new president. Perhaps most of you know him better than I do, but from his looks I am sure he is going to make a good president. (Applause.)

PRESIDENT-ELECT WILLIAMSON: I thank you, gentlemen. I will do my best to serve you.



Of course, I can't get anywhere unless you all cooperate. I assure you I appreciate the honor.

THE SPEAKER: It goes to show that he is a very modest man. I am sure, doctor, we will put on your tombstone what the little boy put on that of the bulldog that lost the fight and got killed. He had on there: "He did his damndest." (Laughter and applause.)

THE SECRETARY: Mr. Speaker, we had a communication from the Woman's Auxiliary, Mrs. Morford, president, this morning. They would like to appear before the body to make a statement of their activities and purposes. If it is your pleasure, I would like to move that we hear them now.

THE SPEAKER: We can take up any new business, unfinished business or miscellaneous matters that you wish to discuss at this time.

#### MOTION TO REIMBURSE THE IMMEDIATE PAST PRESIDENT FOR TRAVEL EXPENSE

DR. A. F. COOPER: Mr. Speaker, there is a matter about which one or two of us have talked a good deal that I want to bring before the house and ask if the house sees fit to instruct the trustees in what to do. That is this: Our immediate past president has spent quite a good deal of money in carrying out the duties of his office. He has traveled all over the state. I don't know the exact amount, I don't suppose he knows either because he usually doesn't keep an itemized account of expenditures in line of duty.

I don't know whether it has been customary in the past or not; I don't know whether the house would deem it an unwise precedent to set up, but, personally, I think it would be quite the decent thing to do, to reimburse the president somewhat, at any rate, for the traveling expenses he has been under in the interest of this body.

THE SPEAKER: Are you going to make that retroactive? Dr. Manier is out a little bunch of money.

DR. COOPER: I would just as soon make it retroactive. I would like to make that motion, Mr. President, that this body instruct the trustees to reimburse the immediate past president to the extent of, I will say, \$100. I am quite willing to make an oath that he has spent as much as \$400 or \$500.

DR. FRANKLIN B. BOGART (Chattanooga): I happen to be a member of the Board of Trustees, and I have been a member of the House of Delegates for several years. I feel as Dr. Cooper does, of course, that if we were able, it would be a nice gesture to reimburse Dr. Williamson, but, as you just spoke about and intimated, there are not only one or two, but quite a few previous presidents who have spent considerable sums. I be-

lieve that it would be a poor precedent to set at this time until considerable thought had been given to such a precedent.

While it came on the spur of the moment, I would not say that I was fixed in my opinion, but I would say offhand that it would be a poor precedent, and it ought not to be authorized. It could be discussed at some future time, but I would be opposed to it right at this time.

THE SPEAKER: Dr. Cooper, could you modify your motion so that it could be referred to the trustees for consideration?

DR. COOPER: I will accept that as an amendment.

DR. MANIER: Mr. Speaker, there is one thing that this body ought to instruct your Board of Trustees on, perhaps bearing on that type of situation. Gradually, as years have gone on, it has become more and more necessary not only for your executive officer to travel around, but it has become necessary from time to time to bring all of these varied and sundry committees back to have meetings.

Of course, heretofore, that item of expense has amounted to so little, we never had to have any particular action about it, but it seems to me it would be a very wise idea for this body to instruct the Board of Trustees to set up some proper kind of expense account, I mean to let men on committees and other things travel on a certain mileage basis, just as they do everywhere else, get it down to a plain, common-sense basis.

It is embarrassing to the man who has to come to a place, to sit down and itemize the different, little things he has done. It is far better to say to him that he will get so many cents a mile for travel and "that covers your expenses." Personally, I think that, certainly, the man in an executive position, if he fulfills his obligations, is going to have to do a tremendous amount of traveling, and he ought not to be subjected to a tremendous amount of expense in that way.

The thing I am most interested in is seeing the Board of Trustees instructed to set up some definite basis of expense account for all committeemen and whatever other people they wish to have come under that plan.

DR. A. F. RICHARDS: I want to supplement the doctor's remarks to this extent. Certainly, this would be a bad precedent to set. As time goes on, with the present ideas being taken up from the national expenditures of money, it will not be long until we will be asked to spend \$1,000 to send our president from Bristol to Memphis. There is no limit to such a thing as that. It is poor business, and it is bad business. Understand, I am not objecting to these expenses being met in a limited way, to say the least.

I want to suggest that there be a limitation set,

and that it cannot go far beyond it, if we do anything about it at all. I want to endorse what Dr. Manier has said about it. The theory is correct. We can't do business in that loose, sloppy way, that our appropriations be made according to the political status at that time.

THE SPEAKER: Someone else? Let's discuss this freely because it is an important subject.

DR. EVERETT: Mr. Speaker, I think probably the fairest way to get an expense account of that kind would be on a mileage basis, so when the president or members of the various standing committees attend to our business, they be reimbursed on a mileage basis of travel, while they are actually attending to our business. I think that would be the fairest way to arrive at the expense account.

DR. COOPER: Mr. Speaker, if I may rise again, my original motion was that Dr. Williamson be reimbursed to the extent of \$100. He doesn't know how many miles he traveled, and I certainly wouldn't recommend that we reimburse him \$400 or \$500, although I am quite positive he has spent that much money, and it was all in the interest of this association and nothing in his personal interest.

DR. J. B. HASKINS (Chattanooga): Honor carries responsibility. I feel this way about it, that a man who is not willing to accept the responsibility that goes with the office shouldn't be elected. Personally, I am opposed to any kind of an appropriation. I think the Nominating Committee should have in mind the honor and responsibility and expense that goes with the office before they nominate a man for president.

THE SPEAKER: Any man that is in that practice, certainly it would be a pittance to pay him by mileage or any other way because what he loses away from his work is tremendous. Hence, we couldn't in any way really repay him for what it costs him. One day out of his office might be several hundred dollars to him. This is your question now. Let's hear from somebody else.

DR. BATTLE MALONE: Was an amendment proposed?

THE SPEAKER: No amendment yet.

DR. MALONE: With his permission, if he is willing to accept it, I would like to amend the motion to the effect that this matter be referred to the Board of Trustees for their action.

THE SPEAKER: I don't think the Board of Trustees, which consists of about eight or ten men, should be responsible for that. It is too big a question. I think this house should decide it.

DR. MALONE: That is the amendment I offer.

DR. COOPER: I will accept the amendment.

DR. W. P. WOOD: I think it is all right, but I think the honor of being president of the State Association of Tennessee is enough to justify a man to do his duty, if he accepts the place, without paying him anything. I don't believe that a man who wants to be president would even consider being paid. There is honor enough in it for him to be president, to do all that is required of him and do it gratis. I don't think it is the thing to do.

DR. RICHARDS: Mr. Speaker, just one more word. I think Dr. Wood is right about that thing. I happen to have had that honor conferred upon me, the highest honor within the gift of our profession, and I thought enough of it and prized it highly enough to have that honor, of handing down to my posterity that I sacrificed a salary of \$5,000 in order to be president of the state medical society in 1920, and I have never regretted it.

I think any man capacitated to do the business of the president of this society certainly, with all of the sacrifices that he may make, is amply paid in having it go down in the history of our state that he was blessed with that honor.

THE SPEAKER: If I am not mistaken, I remember last year Dr. John Steele stated before this body that for financial and other reasons (I think he mentioned financial reasons, also) he was not able to get around as he should or might have done. So, a president who is not financially able to visit the various sections of the state might be incapacitated to that extent. On the other hand, perhaps he ought not to accept it, if he can't. I don't know just what I would do under those circumstances.

DR. W. P. WOOD: What would you have done if you had been elected as president?

THE SPEAKER: I would have borrowed the money.

DR. W. R. FYKE: I have been serving for the past two years on the Board of Nursing and Practice. We are allowed five cents per mile for traveling expenses, whether we travel by car, plane or rail; two dollars per day for meals; and three dollars per day for hotel bill or Pullman.

I think Dr. Williamson should be reimbursed for his financial expenditures. I only mention that this is allowed the members of the Board of Nursing and Practice, just as an illustration as to what his expense might be limited at.

THE SPEAKER: Of course, the president is not the only one who has expenses. The trustees have some expenses, too. I didn't turn in an expense account this year for the simple reason

that I went to Nashville and we beat the Vanderbilt football team, and that was enough for me. (Laughter.)

The question was called for.

THE SPEAKER: Are you ready for the question? Dr. Cooper, please make your motion once more.

DR. COOPER: The amendment will have to be voted on first.

THE SPEAKER: There was no second.

DR. COOPER: I accepted the amendment.

THE SPEAKER: State the motion as amended, please.

DR. COOPER: The amendment that Dr. Malone suggested was that the matter be referred to the Board of Trustees for action. That is correct, isn't it, Dr. Malone?

DR. MALONE: Yes. You have Dr. Cooper's motion before you.

THE SPEAKER: That it be referred to the Board of Trustees.

DR. MALONE: This is the question, that the matter of recompensing the president be referred to the Board of Trustees.

DR. C. M. HAMILTON: Dr. Williamson happens to be a member of the Board of Trustees. I think it would be rather embarrassing to him to have to vote on that.

THE SPEAKER: That would be like the Supreme Court voting on the income tax. Personally, I am going to say I hope you won't refer it to the Board of Trustees, I being a member of the Board of Trustees. I hope this body will decide it. You have more opinions here and more men to decide the question than just a few men. We will vote on the amendment first, that is, to refer this motion to the Board of Trustees.

DR. RICHARDS: Mr. Speaker, the second to that motion has not been consulted and has not accepted the amendment.

THE SPEAKER: Who seconded your motion, Dr. Cooper?

DR. EVERETT: I seconded the motion.

THE SPEAKER: Do you accept the amendment?

DR. EVERETT: Yes.

THE SPEAKER: We will vote on the question, that the matter of reimbursing the last president, Dr. Williamson, \$100 be referred to the Board of Trustees. All in favor say "aye"; opposed "no." The "noes" have it. We are going to vote on the original motion now. The motion

before the house is that we reimburse President Williamson to the extent of \$100 for his services last year. Are you ready for the question? All in favor say "aye"; opposed "no." The "noes" have it.

Does someone want to make a motion to the effect that we reimburse him at all, on mileage or any other way? There is no motion before the house.

#### MILEAGE PAYABLE TO THOSE TRAVELING ON ASSOCIATION BUSINESS

DR. C. M. HAMILTON: Mr. Speaker, I would like to make a motion that we allow—someone just suggested five cents would probably compensate most people attending committee meetings. I would like to make a motion that we allow three cents a mile. I think that would be enough for attending the regular committee meetings.

THE SPEAKER: You mean trustees?

DR. HAMILTON: Trustees or any official committees of the association. We have been paying five cents. I think it is a little too much.

DR. BOGART: I would like to second that motion.

THE SPEAKER: It is moved and seconded that all committeemen, trustees and everybody else be allowed three cents a mile.

DR. HAMILTON: We have been paying for the meals and hotel bill in addition to the five cents.

THE SPEAKER: You just want to change it so they get three cents a mile instead of five cents.

DR. HAMILTON: Yes.

THE SPEAKER: Are you ready for the question? All in favor say "aye"; opposed "no." It is carried.

#### REPORT OF THE PRESIDENT OF THE WOMAN'S AUXILIARY

THE SECRETARY: Mr. Speaker, some years ago, as you know, by action of the house, the Woman's Auxiliary was given a status in Tennessee. As far as I was concerned, I think all who have had executive connections have had the feeling that it was possible for a Woman's Auxiliary to be of tremendous usefulness; it was also possible for such an organization to be of harm.

In so far as my connection has been with their organization, it is a pleasure to state that their executive officers have been useful but none has been more useful than the present president, Mrs. Morford, whom I now present to you. (Applause.)

MRS. THEODORE MORFORD: Mr. Chairman, Distinguished Physicians: I believe this is just about the hardest job I have had since I came into office last April, but I will consider you all friends and husbands of my own dear friends—your wives.



This year our registration here in Knoxville has amounted to ninety-eight, a great increase over previous years. Our voting delegates number thirty-seven. We have eight counties organized in the state and wish for many more.

The balance in the treasury this year has been \$464.90. *Hygeia* subscriptions, 120.

I would like to thank Dr. Williamson for his splendid cooperation this year and in giving me three such helpful workers on my Advisory Council, Dr. Wood of Knoxville, Dr. Edwards of Nashville, and Dr. Searight of Memphis.

The state convention has to do with education and administration. It is held, first, in order to review and appraise the work done during the past year; second, to decide what work is to be undertaken for the future and, third, to devise plans for that work.

Our policies this year have been unity in action, endeavors and principles; expansions carefully, slowly, but steadily; directing health work in other women's organizations, such as Parent-Teacher, Y. W. C. A. and others; urging county auxiliaries to perform some positive objective, thereby increasing the interest in those groups; encouraging the circulation of *Hygeia*, which is an obligation given us by the A. M. A. to society; the celebration each year of Doctors' Day, in the belief that no recognition, however great, would in any way show our deep appreciation of them; complete cooperation with the medical society at all times.

I have written during the year 234 letters to various members of my board and national. Each member of the state executive board was put on the mailing list of the State Public Health Department, being sent the Health Briefs from that office during the year, and other letters.

Our membership has grown from 211 to 279 during the year, and we expect continued growth during the coming year. We had a state executive board meeting in Nashville in February, at which time Dr. Edwards spoke to us and gave an interesting talk on the health laws that were being revised at that time, and also some very good pointers on socialized medicine, for our information.

For the first time in the life of our Tennessee Woman's Auxiliary, the complete plans for our state program were printed in the State Medical Society program. I knew nothing of this courtesy until it was published, and you can well imagine my joy at this distinct recognition of the state organization. A note of thanks was immediately dispatched to Dr. Shoulders, and this program was sent, of course, to all of you throughout the state.

I would like to call your attention to the exhibits we have had this year on the mezzanine floor, the *Hygeia* display, the display on the control of cancer, and our most prized one, that of the old relics that were used by our early physicians in Tennessee. I hope each one of you has seen those exhibits.

At our meeting yesterday we voted to make this

a permanent affair and to have our case of exhibits in one of the public buildings, one of the state buildings in Nashville, which all of you may go and visit at any time, and we will preserve them very carefully.

A trophy was offered this year for the best paper written by a member of the auxiliary on some medical point, not technical at all but of interest to our auxiliary. This was won by Miss Mary Hall, who is the daughter of a physician in Murfreesboro. She wrote on "Pioneer Women in Medicine"—a most interesting paper.

I believe that about covers what was accomplished by the state president. Of course, our counties have been very active and have made splendid reports at this meeting. I would like to thank you again for the cooperation of our Advisory Council and your president, and thank you most heartily for these few minutes' time given today. (Applause.)

**THE SECRETARY:** Mr. Speaker, may I say that the publication of the program was not altogether gratuitous on our part. It was to keep the husbands of the women off our necks because they couldn't find them when they go to the meeting, unless we had them in there.

**THE SPEAKER:** Is there any unfinished business or new business or anything else we should take up at this time?

#### VOTE OF THANKS

**DR. COOPER:** Mr. Speaker, I have spoken twice on this floor to points that I consider very important, and I am frank to admit I was sunk without a trace both times. I am going to make a motion right now that I know is going over.

I want to move that this body express to the physicians of Knoxville a vote of thanks for the many courtesies and kindnesses that have been shown to us during this meeting.

**DR. C. M. HAMILTON:** I second the motion.

**THE SECRETARY:** Gentlemen, you have heard the motion. Is there discussion? If not, are you ready for the question?

**DR. MALONE:** I was going to say that we thank them by a rising vote.

**THE SECRETARY:** It has been suggested that it be by a rising vote. All in favor will please stand. The chair announces the vote unanimous.

**THE SPEAKER:** We have to find a place to meet next year.

#### NEXT MEETING PLACE

**DR. J. O. MANIER:** I would like to take this opportunity, on behalf of the profession of Nashville, to invite the Tennessee State Medical Association to meet in Nashville next spring.

The motion was regularly seconded.

THE SPEAKER: Are there any other nominations for a place of meeting? If not, all in favor say "aye"; opposed "no." It is so ordered. We will meet in Nashville next year.

Gentlemen, this brings us to the close of another annual session. I think you will all agree that the meeting in Knoxville has been a wonderful success. Certainly, the physicians of Knoxville and East Tennessee have tried to make it a success and to live up to their reputation of being a hospitable people.

We hope you will go back home benefited and instructed by the scientific program. We hope you will go back home with a better feeling in your heart for your fellow practitioners, with a better understanding of them, and more energy, after this pleasant relaxation, and that you will return to us again the next time we meet here, and we will try to outdo what we have done this time for you.

With that, we stand adjourned.

The meeting adjourned at ten-twenty o'clock.

## *Index to Proceedings of the House of Delegates*

	Page		Page
Committees Appointed .....	313	Amendments to Constitution and By-Laws .....	333
Dr. Heyd's Address .....	313	Tennessee State Nurses' Association .....	338
<b>Reports of Officers</b>			
Report of Treasurer .....	315	Medical Library Association .....	338
Financial Statement of Postgraduate Instruction Committee .....	316	Resolution Adopted by Board of Trustees of American Medical Association .....	340
Report of the Board of Trustees .....	317	Campbell County Charter .....	342
Report of the Secretary-Editor for the Calendar Year 1936 .....	318	Table of Statistical Data .....	343
Report of Dr. Williamson, President .....	320	The Election of Councilors .....	344
Councilors' Reports .....	341	Report of Delegates to the American Medical Association .....	344
Nominating Committee Elected .....	320		
<b>Reports of Standing Committees</b>			
Report of Committee on Scientific Work .....	320		
Report of Liaison Committee .....	323		
Report of Hospital Committee .....	323		
Report of Committee on Insurance .....	323		
Report of Medical Defense Committee .....	324		
Report of Advisory Committee of Woman's Auxiliary .....	324		
Memoirs Committee .....	325		
Report of Committee on Maternal Welfare .....	325		
Report of Committee on Postgraduate Instruction in Obstetrics .....	325		
Report of the Cancer Committee .....	332		
Report of the Legislative Committee .....	334		
Report of Committee on Physical Therapy .....	340		
Report of Committee on Child Welfare .....	352		
Report of Committee on Medical Education .....	352		
<b>Reports of Reference Committees</b>			
Reports of Reference Committee on Reports of Officers .....		348	
Report of Committee on Reports of Committees .....		349	
Report of Committee on Resolutions .....		353	
Report of Reference Committee on Amendments to the Constitution and By-Laws .....		353	
Dr. Ayres' Resignation from the State Board of Health .....		357	
Appropriation for Postgraduate Instruction .....		357	
Medical Practice Act .....		358	
Report of Committee on Nominations and Election of Officers .....		359	
Syphilis Program .....		349-361	
Motion to Reimburse the Immediate Past President for Travel Expense .....		362	
Mileage Payable to Those Traveling on Association Business .....		364	
Report of the President of the Woman's Auxiliary .....		364	
Vote of Thanks .....		365	
Next Meeting Place .....		365	

### INDEX TO MINUTES

An effort has been made to index the minutes so as to give ready reference to any subject.

It is necessary for the reader to bear in mind the procedure followed by the house in the transaction of business.

Five different reference committees are appointed by the speaker to consider business and to make recommendations to the house. This applies to old as well as new business.

An officer or chairman of a committee makes his report; this report is referred to a Reference Committee. The Reference Committee makes its report and recommendations. This is followed by discussion, if any, and then the house takes action by vote. A resolution takes a similar course.

The reader will find the various reports and resolutions indexed as such. The minutes show the reference committee to which each report, or resolution, was referred. The index also shows the page on which the report of each reference committee may be found. In connection with this report the action taken by the house will be found.



## INFECTION AND TRAUMA IN THE DIABETIC\*

JAMES S. READ, M.D., Nashville

ANY DIABETIC is usually quite a problem to handle, but the diabetic with an infection is a most serious one. The diabetic with an infection is much more likely to die than the diabetic without one. This individual requires the closest cooperation between the medical man and the surgeon. The medical man and surgeon should meet frequently at the patient's bedside to discuss the case, for I do not believe that the actual condition of the patient can be really appreciated by bedside visits at different hours followed by a discussion of the case over the phone. Fairness to the patient requires almost constant observation on the part of both.

Most infections in a diabetic are associated with gangrene or ulcers of the extremities, especially the lower. Another important group of cases comprises those in which organisms gain entrance through the skin and cause deep or superficial processes such as carbuncles and abscesses. At this point I should like to stress the fact that these ulcers and infections of the skin are made much worse by the application of strong antiseptic agents. This is a reflection on the medical man in the majority of cases, for he has failed to properly instruct his patient. All of you are aware of the results that sometimes follow the trimming of a corn or ingrown toenail.

In the management of diabetics with infections there are certain factors which are well to remember. The diet in these cases should usually contain about one gram of protein per kilogram of body weight, and the carbohydrate should be relatively high with a small amount of fat. The dose of insulin must be increased in order to prevent acidosis and to prohibit the loss of glycogen from the liver. Fluids should be forced just as in any other infection. At this time I should like to call your atten-

tion to the fact that a high blood sugar of itself does not interfere with the healing of tissues. To keep a blood sugar within normal limits and the urine free of sugar often requires too heroic doses of insulin or too radical curtailment of the diet. Large doses of insulin are likely to produce reactions which require carbohydrate in some form, and this often causes a resulting glycosuria and hyperglycemia. Insulin reactions may do no harm, but certainly they do not help the patient.

Surgical infections such as carbuncles and gangrene must be dealt with promptly. The carbuncle that is treated with crucial incisions or cauterization usually does well. The neglected carbuncle does badly and too often the neglect is due to the fact that the diabetic specialist is trying to obtain a normal blood sugar and negative urines in preparation for the operation. The diabetes can usually be well taken care of if the carbuncle is promptly treated.

Gangrene of the extremities is yet a most serious complication of diabetes and taxes both surgeon and medical man to the utmost. Here we are dealing with an individual well beyond middle life and one who has a varying amount of arterial changes not only in the extremities, but also in the cerebral and coronary vessels. He has had diabetes for a number of years and evidently has handled it very well or he would not have attained his present age. His diabetes has been mild. We must be particularly careful in this type of case not to make the diabetes worse by sudden changes in diet. A certain blood sugar level, usually high, has been attained by him, and we must be cautious in the use of insulin lest we bring some catastrophe upon him. If an amputation is to be performed, the diet should be along the line that he has followed.

The decision as to the time of operation is often difficult to make in these cases. I am convinced that one rarely operates too

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.

soon and that seldom is the amputation too high. If the gangrene is of the dry type and is becoming localized, it is well to wait. If the gangrene is of the moist type and spreading, immediate surgery is imperative. If the process is remaining stationary, it is probably wisest to operate because a focus may flare up at any time and lead to a rapidly-spreading gangrene or blood stream infection. Pain is an indication for surgery as it usually signifies a marked degree of arteriosclerosis. The financial side of gangrene must be taken into consideration. Early surgery is much less expensive than prolonged medical treatment, and sooner or later the patient will probably have to undergo surgery. The type of anesthesia and its duration plays an important part in these cases. The more rapidly the amputation can be performed the better it is for the patient.

Trauma in the diabetic should be handled promptly just as it would be in the non-diabetic. Again, I should like to stress the importance of taking care of the injury and not concentrating too much on the treatment of the diabetes. If the patient is in shock, the usual methods of its treatment such as transfusion, salt solution under the skin, and glucose intravenously are perfectly compatible with the treatment of his diabetes. The glucose can be taken care of with insulin. As soon as the patient is over his shock, the management of his diabetes can be begun in a systematic and orderly manner.

There is a group of traumatic cases which occasionally shows sugar in the urine, but a true diabetes is not present. Fractures of the skull are probably the most typical in this group. The history of the case as obtained from the individual or from some relative will help to clear this situation up. If this cannot be obtained, we must then turn to our laboratory for aid. Finally, let us remember that there are certain cases of diabetes whose origin has been immediately preceded by some traumatic injury or shock.

#### DISCUSSION

DR. E. R. ZEMP (Knoxville): Severe infection in diabetes is one of the most serious conditions

that the medical man and the surgeon have to deal with, and like a great many other conditions, the prevention of them is easier to carry out and much more satisfactory to the patient. A diabetic patient who carries an infection has a much greater load upon him than he could possibly have under any other condition, for not only is he handicapped by the physiological dysfunction of his various organs, from the fact that he has diabetes, but his fighting forces are markedly interfered with and diminished against the infection that he is suffering from.

We know that it is very common for diabetics to have carbuncles; we know that it is also common for them to have gangrene of the lower extremities. It is much easier to prevent both of these than it is to remedy them after they have once appeared in any form of severity. A tissue that is loaded with sugar has a very low resistance, and a tissue loaded with sugar is an easy prey to infections of all kinds, especially to a streptococcus or staphylococcus infection. The best way, then, to treat infections in diabetes is to prevent them, and they are largely preventable.

In the first place, a diabetic should be the cleanest person in the world, from his head to his feet, or I will put his feet first and say from his feet to his head. In a rather semihumorous paper that was read before our medical society the other night, a doctor made this statement: "A clean neck never has a carbuncle, and when you see a man with a carbuncle he has a dirty neck."

We know that in recent years Joslin especially has called attention to the care of the feet, caution against cutting corns too closely, trimming nails too closely, getting blisters on the feet from shoes—that is if one is a diabetic. In that way and by general hygienic measures we try to prevent infections.

There are one or two other things that I want to talk about very briefly, and one is that a man may be a diabetic and he may not know it. The majority of us only detect diabetes when we can find sugar in the urine. You will be surprised, if you take the blood sugar of many patients complaining of vague pains, weariness, asthenia, and conditions of that kind, to find the patient's blood sugar around 180 or 200. He has a high kidney threshold; consequently, you do not find sugar in that patient's urine, but he is a diabetic nevertheless, and he can have the same kinds of infections, the same kind of obliterative arteritis, and all the other complications if he is permitted to go on from year to year with that high blood sugar. Hence, it is a very good thing when patients come to you with rather vague symptoms, not only to examine the urine, but to examine the blood sugar, and you will be surprised to find how many of them have an elevation of the blood sugar.

Again do not forget that even after you have cleared a patient of sugar in the urine and perhaps

have reduced his blood sugar to normal, if he has gangrene or any condition that is due to an endarteritis, especially obliterative endarteritis, that process goes on, it is not checked with the mere clearing up of your patient. So I emphasize again that the thing to do is to get your patient sugar free and to keep him that way before the injury is done to the arteries and to the other organs of the body.

In preparing these patients for operation, an ordinary diabetic will stand an operation almost as well as any other patients, but we cannot prepare him with the new insulin alone. The protamin insulin is not a fit insulin to prepare a patient for operation. The old insulin has to be used; the other is too slow.

DR. A. M. PATTERSON (Chattanooga): Mr. President and Gentlemen of the Tennessee State Medical Association: Dr. Read has given us a very practical paper, and Dr. Zemp has added a very valuable discussion on the idea of prevention. I should like to discuss this problem more from the surgical standpoint and the case in which the acute infection is already developed. Take, for instance, the carbuncle of the neck. As Dr. Zemp has just emphasized, tissues that are located with sugar very poorly resist infection, and the more fulminating the infection and the further the infection advances the lower that resistance becomes, but along with this there is a train of secondary conditions that cause all the potential dangers to a diabetic to be converted into real hazards that may hurry him into coma. I am speaking here of the lowered tolerance to his carbohydrate metabolism. We know in these cases that the fats in the body are burned in the carbohydrate flame, as it has been said. The lower that carbohydrate metabolism, the more imperfect the fat metabolism. With the result of the incomplete combustion of this fat we have an accumulation in the system of acetone bodies. These acetone bodies at once attack the alkaline reserve and thereby hamper the patient in his exchange of oxygen and carbon dioxide. As his combining power becomes lower and lower, he comes closer and closer to his impending coma.

When we are confronted with such a situation, when the surgeon is called in to see such a patient, the problem is no longer one of treating a diabetic or of opening a carbuncle, but it is of saving a patient's life. We have no indication for operation at that time. An anesthetic or an operative trauma only adds to the lowering of that reserve.

Along with this there is a certain amount of dehydration that increases the viscosity of the blood, and in those cases in which there is a more or less obliterative endarteritis present, that in itself may be the main factor. So the first thing to do is to get your patient off that road to coma, to get his fluid balance restored, and burn up the

acetone bodies that are accumulating in his system. Do not operate on him in that stage. Then give him enough insulin and enough glucose to complete that burning of fat on down past those acetones where his alkaline reserve becomes adequate. Then as quickly as possible open up all suppurative areas and get out from under tension all sloughing tissue that will suppurate further.

As to the case of gangrene, we have a somewhat different problem. Gangrene in itself causes no immediate urgency. However, the gangrene is very easily infected, and the more moisture in that gangrene, the more so does that become. For that reason, desiccate the gangrenous tissues if you can. My preference is simply a dry infrared heat, and in the case of pockets of pus or broken-down tissue, get free drainage for them until you can get your patient in proper condition for whatever operative procedure may be indicated.

Another point about operating on these gangrenous extremities. You know that each time that vessel divides the area of the cross section of that vessel decreases with the square of the radius, and you have that in geometrical progression as you go downward. If your gangrene demarkates at the branching off of the digital arteries, say, for instance, at the base of the great toe, we will probably be able to get by by skipping one bifurcation of the plantars and going into the calf for our amputation. If, however, that gangrene goes above that, we had better go into the thigh.

DR. W. A. BRYAN (Nashville): There are two or three points with reference to these cases that I think should be emphasized. One is the frequent reports that we get from laboratories of traces of sugar. I am perfectly certain that in some of the laboratories a lot of things are spoken of as traces of sugar that are not sugar at all. For instance, just a few days ago I got a report on a patient that was to all appearances perfectly healthy that there was present a trace of sugar. That was followed the next morning by a blood examination which showed fifty milligrams of sugar. Now I do not think that any patient with fifty milligrams of sugar in the blood would show a trace of sugar in the first place, and I do not think either one of the reports was correct. I am sure she had more than fifty milligrams of sugar, and I am sure she did not have a trace of sugar.

The next point is that the threshold for the passage of sugar into the urine is a very variable thing. A patient with 140 or 150 milligrams of sugar frequently should show sugar in the urine, yet I saw a woman within the last three years who had a hopeless condition which I will talk about in a minute, whose urinalysis at Vanderbilt Hospital showed no sugar, and immediate blood examination showed 600 milligrams of sugar. The first that woman knew of her illness was a large abscess in the perineal region. When I saw her, it was enormously large, eight or ten inches across,



violet, yet she had never been sick so far as she was able to state.

We frequently talk about examining for sugar in cases of carbuncle. I think that is all right, I think it should always be done, but this woman that I have just referred to had this enormous abscess which was definitely not a carbuncle, not an evidence of carbuncle in arrangement or appearance, and yet she had this enormous amount of sugar, and she died as a result of her infection on her diabetic condition.

I saw a young woman who came in with an enormous abscess of the lip that came up rapidly and gave her a most hideous appearance. Blood examination showed that she had a high sugar content. As soon as that was corrected the abscess got well without opening. Of course, it would have been opened anywhere else except on the face. I think we should remember that not only in carbuncle, but in violent infections of any type, rapid, enormous infections that come, we should make it a point, if we are not in the habit of doing it anyway, to examine the blood sugar.

DR. J. S. READ (closing): I appreciate this liberal discussion of my paper. I want to thank Dr. Zemp especially for stressing the prevention

of infections and of gangrene, and Dr. Patterson for the surgery in these cases, and Dr. Bryan for his remarks regarding blood sugars.

The points that I tried to make clear in my paper and to drive home were these: that first a surgical diabetic or a diabetic with infection or with trauma demands the closest cooperation between the surgeon and the medical man; secondly, do not let infections get the upper hand and have the infection and the diabetic both to contend with. If you have a known diabetic with an infection, clear up your infection and do not treat your diabetes and wait for the infection to spread; clear up the infection and the diabetes will usually take care of itself, or it can be governed. Thirdly, I do want to stress the middle-aged individual or the individual past middle age with diabetes who has arteriosclerosis or certain arterial changes, as I said, not only in his extremities, but in the coronary vessels. Be careful with that individual. Do not make any radical change. He has had his diabetes for ten or fifteen years, and just like any other individual sixty-two or sixty-five years old, too radical changes in diet or what not are not good for that individual.

# THE JOURNAL

OF THE

TENNESSEE STATE MEDICAL ASSOCIATION

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H. H. SHOULDERS, M.D., Editor and Secretary

SEPTEMBER, 1937

## EDITORIAL

### FEDERAL HEALTH INSURANCE

*The Chicago Journal of Commerce*, in the issue of September 4, 1937, carried a news item on the first page dealing with the subject of health insurance. Several facts, or opinions, as expressed in the article are of interest to the medical profession. The item was under a Washington headline.

One is that "a health insurance system holds high place on the administration's calendar of legislation 'futures.'"

Another is that the bill is to be introduced by Senator Wagner.

Another is that the White House likely will not press the legislation "until the government's fiscal problems have been eased considerably."

Another is that the social security board is studying the question seriously.

Another is that it is estimated that a tax equivalent of five per cent of pay rolls would be necessary to support it.

It is stated also that "all the work preliminary to the actual introduction of a health insurance bill is being done quietly and every effort is being made to avoid publicity; the reason for the secrecy is that the administration does not wish to stir up opposition from many groups which regard the plan with hostility.

Finally, it is stated in effect that the White House was dismayed by statements made by Senator J. Hamilton Lewis to the American Medical Association in June, though the White House did not repudiate the statements.

There are several facts already developed to indicate that security cannot be purchased by federal taxes. There is still more evidence to show that individual health cannot be purchased by federal taxes.

There are a lot of people who think, some of them honestly, that if they had enough power and enough money they could make everybody healthy and happy. A noble thought and a fine objective.

There are also a lot of us who know that health and happiness cannot be bought that way. We also know that if we once turn over to a bunch of theorists the money and the power to start such a scheme there will be no turning back even after failure has been demonstrated.

The political patronage to such a scheme is so enormous that a political organization, so powerful as to be insurmountable, would be created.

Thus can liberty and happiness be destroyed *in the name of welfare*.

### READ THE MINUTES OF THE HOUSE OF DELEGATES

The membership is urged to read the proceedings of the House of Delegates published in full in this issue.

It is believed that you will get a more accurate conception of the vast amount of work that is done by the executive officers and committeemen to whom duties have been assigned.

Some of it may be dull reading, it is true, but you cannot get information from reading fiction. God knows there is too much fiction being written and read already, and some of it is taken seriously, too, by the author and the readers.

DR. GEORGE H. SIMMONS  
1852-1937

The death of Dr. George H. Simmons on September 1, at the age of eighty-five years, has taken from medicine one of the most forceful figures that ever has been identified with organized medicine in America.

He first became identified with organized medicine, in an executive capacity, in Lincoln, Nebraska, in 1895.

In 1899, when the Board of Trustees of the American Medical Association was in search of a secretary for the organization and an editor for its periodicals, a number of leading figures in the medical literary and political world were given consideration. They appeared before the Board of Trustees, many of them with strong endorsements. After long consideration the Board of Trustees chose Dr. George H. Simmons for the position of general secretary, which he filled from 1899 to 1911, and of editor, which he occupied until 1924. In 1901 he became also general manager. Before its reorganization in 1901 the American Medical Association was not a truly representative body, and the method of administration of its professional affairs and its business were, to say the least, disorganized. When Dr. Simmons became secretary in 1899 he initiated the movement which led to the appointment of a committee, of which Dr. J. N. McCormack of Kentucky was chairman and the secretary, to consider ways and means of reorganization. At the meeting of the association in St. Paul in 1901 the general principles and policies outlined in the constitution and by-laws presented by that committee were adopted. The present plan of organization of the American Medical Association is largely due to the work of that committee.

To tell the story of the services of Dr. Simmons in the period from 1899 to 1924 is to tell the history of the American Medical Association in that period.

No individual of his generation touched medicine in so large and vital a way as did Doctor Simmons.

His life touched medical organization in a most important way at a time when honest, forceful leadership was needed. It touched medical literature. It touched medical education. It touched quackery of all sorts, both in medical practice and in the advertisement of quack remedies to the unsuspecting. He touched all those and many other aspects of medicine in a most vital way. The profession and humanity are the beneficiaries.

He had a big faith in organized medicine. He had faith that organized medicine could

correct most of the evils connected with medicine.

He was right. Look at the reforms in medical education. Look at the reforms in medical advertising. Wild-eyed reformers, and a clamor for laws, never brought these reforms.

He had vision. One outstanding evidence of this is the fact that he trained capable men to take over the tasks he performed, and then admired their work in his declining years. Thus he rounded out a most useful and, we believe, happy life.

## DEATHS

Dr. M. L. Hughes, Clarksville; University of Nashville, 1897; aged 51; died August 27.

Dr. H. L. Alexander, McKenzie; University of the South, Medical Department, Sewanee, 1901; aged 61; died unexpectedly September 7.

## NEWS NOTES AND COMMENTS

The International Assembly of the Interstate Postgraduate Medical Association of North America will be held in St. Louis, Missouri, October 18-22, with clinics on October 16 and 23 in the hospitals of St. Louis.

The program has been carefully arranged to meet the demands of the general practitioner as well as the specialist. Extreme care has been given in the selection of the contributors and the subjects of their contributions.

For further information, write Dr. W. B. Peck, Managing-Director, Freeport, Illinois.

### THE MEETING OF THE ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES

There will be a meeting of the Association of Military Surgeons of the United States in Los Angeles, California, October 14, 15, 16, 1937.

President of the organization is Rear Admiral P. S. Rossiter, surgeon general of the United States Navy. Col. James A. Mattison, Veterans Administration, Wash-



ington, D. C., is the secretary-editor. Lieut. Col. E. C. Moore is chairman of the Public Relations Committee, 511 South Bonnie Brae, Los Angeles, California.

Dr. E. W. Cocke has opened offices for private practice at 1023 Madison Avenue, Memphis.

After completing an eight months' post-graduate course in internal medicine at the University of Pennsylvania, Dr. Dan R. Thomas is associated with Dr. Robert B. Wood of Knoxville.

#### TO AMERICA'S SCHOOLS—YOUR HEALTH

Once more, during the coming fall, winter, and spring, the Voices of Medicine will salute the people of America with the toast, "Your Health." This is the well-known title of the radio program of the American Medical Association and the National Broadcasting Company. The coming season will be the fifth; the first two years were devoted to health talks, and the last two seasons to dramatized health messages. This year the salutation will be addressed particularly to the teachers and students in the junior and senior high schools in the hope that the program will be helpful in illustrating, amplifying, and enriching the health teaching in those schools. The program will be on the air while schools are in session so that the program may be utilized directly in the thousands of schools which now have or soon will have radio and public address systems reaching the classrooms. Programs will be announced in advance in *Hygeia*, the health magazine. While the program is planned especially for high schools, it will not sacrifice the interest which it has held for listeners in the home. To teachers, students, and stay-at-homes, the American Medical Association and the National Broadcasting Company will address their message of health education with the familiar musical theme, *Hale and Hearty*, written especially for the program, and the toast, "To America's Schools, Your Health."

#### FIFTEENTH ANNUAL MEETING OF THE ACADEMY OF PHYSICAL MEDICINE, PHILADELPHIA, OCTOBER 19, 20, 21

The fifteenth annual meeting of the Academy of Physical Medicine will be held at the Hotel Walton, Philadelphia, October 19, 20, 21, 1937.

The academy, which is international in scope, will present a scientific program based on reports of the most recent research and practice of the various specialties. In addition to the lectures, demonstration clinics will be held at the hospitals of the University of Pennsylvania, Jefferson Medical College, and Temple University.

A copy of the program may be had by addressing:

William D. McFee, M.D., Chairman, Committee on Program and Publication, 41 Bay State Road, Boston, Massachusetts.

### WOMAN'S AUXILIARY

President.....	Mrs. W. T. Black
	Memphis
President-elect.....	Mrs. H. E. Christenberry
	Knoxville
Press and Publicity.....	Mrs. B. F. Byrd
	Nashville

#### ANDERSON COUNTY AUXILIARY NEWS

The Woman's Auxiliary to the Anderson County Medical Society met at the home of Mrs. S. E. Williams, Coal Creek, Tennessee, July 20, with five members present.

Mrs. Tom Jennings reported six memberships in the Control of Cancer Society.

Mrs. P. M. Dings and Mrs. James S. Hall were appointed as a committee to draw up resolutions of respect on the death of Mrs. H. D. Hicks.

A very interesting program had been arranged by the program chairman, Mrs. S. E. Williams, consisting of a paper on cancer, which was read by Mrs. Dings, and some original verses given by Dr. Dickson.

Dr. Dickson is one of the oldest members of the Anderson County Medical Society, and these verses were reminiscent of his early days of practice and were very humorous and entertaining.

MRS. JAMES S. HALL, *Secretary*.

## RESOLUTIONS

Alice Brown Hicks (Mrs. H. D.), Clinton, Tennessee. Born February 14, 1877; died May 5, 1937.

Mrs. Hicks was a charter member of the Anderson County Medical Auxiliary. She served two years as president and discharged faithfully the duties imposed upon her both as an officer and member, giving unselfishly of her time and means to the work of the auxiliary. We feel that we have lost one of our most loyal and devoted members, and the memory of her good deeds and kindly advice will be tenderly and lovingly cherished in our hearts.

Mrs. Hicks attained to a high degree the ideals of a wife and homemaker, and in her dealings with others was respected and loved for her sincerity, friendliness, and hospitality. In her death the community has lost a good neighbor and friend.

This auxiliary, in recognition of her worth, desires to express its respect and admiration of her by placing this tribute as a permanent record on our minute book and furnishing a copy of same to the family, also a copy to the TENNESSEE STATE MEDICAL JOURNAL.

Woman's Auxiliary to the Anderson County Medical Society.

MRS. P. M. DINGS,

MRS. JAMES S. HALL,  
*Committee.*

**MEDICAL SOCIETIES**

*Campbell County:*

Dr. J. L. Heffernan of Jellico addressed the Campbell County Medical Society in LaFollette on August 26. His subject was "Sulphanilamide."

Dr. Heffernan gave a very thorough discussion on this paper, having reviewed all the recent literature in its preparation. Dr. J. W. Presley opened the discussion.

Members present were J. L. Heffernan, S. S. Brown, W. D. Gibson, J. W. Presley, R. W. Lewis, M. L. Davis, J. P. Lindsey, G. M. Rogers, and R. J. Buckman. Dr. Lewis was chairman of the meeting.

(Signed) R. J. BUCKMAN, *Secretary.*

*Davidson County:*

The Nashville Academy of Medicine and Davidson County Medical Society started its fall session with a dinner meeting at the Noel Hotel, September 7. A large number of doctors of adjoining counties were present at the meeting.

Dr. George Williamson, president of the state society, and Dr. Jack Witherspoon, vice-president of the state society and president of the academy, were the guests of honor and speakers at this "Presidents' Dinner."

*Dyer, Lake, and Crockett Counties:*

After the usual two months' vacation the Dyer, Lake, and Crockett Counties Medical Society met in regular monthly session. The following scientific program was very instructive and well attended:

"Zinc Protamine Insulin in the Treatment of Diabetes Mellitus." Dr. E. B. Smythe, Tiptonville.

"Sulfanilamide and Allied Chemicals," Dr. John Frazier, Newbern.

"Syphilis," Dr. B. W. Patton, Dyersburg.

(Signed) C. L. DENTON, *Secretary.*

*Giles County:*

The Giles County Medical Society met September 2 in regular monthly session. Dr. W. F. Copeland of Cornersville was the speaker. His subject was "Enuresis."

*Greene County:*

The Greene County Medical Society met on Tuesday, September 7 at the Andrew Johnson Club House. Dinner was served at six-thirty, after which two papers were read. The first was presented by Dr. C. P. Fox, Sr., on "Cancer of the Cervix," and the second by Dr. J. D. Campbell on "Indigestion."

The following members and guests were present: Drs. M. A. Blanton, J. D. Campbell, L. E. Coolidge, R. S. Cowles, L. E. Dyer, C. P. Fox, Jr., C. P. Fox, Sr., H. W. Fox, R. B. Gibson, Hal Henard, C. B. Laughlin, W. T. Mathes, and R. H. Miller.

(Signed) H. W. Fox, M.D.

*Acting Secretary.*

(Continued on page 378)

## LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. Geo. C. Williamson, Columbia.  
 Vice-President for West Tennessee—Dr. F. K. West, Rossville.  
 Vice-President for Middle Tennessee—Dr. Jack Witherspoon, Nashville.  
 Vice-President for East Tennessee—Dr. Andrew Smith, Knoxville.  
 Secretary-Editor—Dr. H. H. Shoulders.  
 Assistant Secretary-Editor—Dr. W. M. Hardy.

## TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville.  
 Dr. A. F. Cooper, Goodwyn Institute Building, Memphis.  
 Dr. E. R. Zemp, Walnut Street, Knoxville.  
 Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.  
 Dr. W. L. Williamson, 915 Madison Ave., Memphis.

## COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.  
 Second District—Dr. S. R. Miller, Knoxville.

Third District—Dr. Hiram A. Laws, Jr., Chattanooga.  
 Fourth District—Dr. J. T. Moore, Algood.  
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 Sixth District—Dr. H. S. Shoulders, Nashville.  
 Seventh District—Dr. C. D. Walton, Mt. Pleasant.  
 Eighth District—Dr. J. R. Thompson, Jackson.  
 Ninth District—Dr. E. H. Baird, Dyersburg.  
 Tenth District—Dr. W. B. Burns, Memphis.  
 Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

Delegates to the American Medical Association—  
 Dr. E. G. Wood, Knoxville; East Tennessee.  
 Dr. H. H. Shoulders, Nashville; Middle Tennessee.  
 Dr. H. B. Everett, Memphis; West Tennessee.

## Alternates—

Dr. E. T. Newell, Chattanooga; East Tennessee.  
 Dr. J. O. Manier, Nashville; Middle Tennessee.  
 Dr. E. C. Ellett, Memphis; West Tennessee.

## OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	VICE PRESIDENT	SECRETARY-TREASURER
Anderson	H. D. Hicks, Clinton	J. Sam Taylor, Clinton	J. S. Hall, Clinton
Bedford	James W. Reed, Belfast	James N. Burch, Shelbyville	W. B. Barton, Briceville, Assoc. Sec.
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Bradley	J. Lake McClary, Cleveland	W. C. Stansberry, Cleveland	W. C. Crowder, Maryville
Campbell	G. B. Brown, Jellico	R. W. Lewis, Westbourne	C. H. Taylor, Cleveland
Carroll	E. W. Hillsman, Trezevant	A. R. Collins, Watauga Valley	R. J. Buckman, LaFollette
Carter	O. F. Agee, Elizabethton		J. H. Williams, McKenzie
Chester, Henderson, and Decatur	H. T. Pitts, Henderson		E. T. Pearson, Elizabethton
Cocke	J. E. Hampton, Newport	W. C. Ruble, Newport	L. C. Smith, Henderson
Cumberland	E. W. Mitchell, Crossville	T. D. McKinney, Nashville	Fred M. Valentine, Newport
Dickson	Jack Witherspoon, Nashville		V. L. Lewis, Crossville
Dickson	L. F. Loggin, Charlotte	B. G. Marr, Dyersburg (Dyer)	J. P. Gilbert, Nashville
Dyer, Lake, Crockett	J. P. Baird, Dyersburg	W. L. Sumner, Ridgely (Lake)	R. P. Beasley, Dickson
		J. O. McKinney, Friendship (Crockett)	C. L. Denton, Dyersburg
Fayette and Hardeman	L. D. Pope, Grand Junction	F. K. West, Rossville	Wiley D. Lewis, Bolivar
Fentress	C. A. Collins, Wilder	V. H. Crouch, Forbus	J. P. Sloan, Jamestown
Franklin	Alfred Parker Smith, Winchester	Geo. E. Bogart, Sherwood	John M. Hardy, Swanee
Gibson	H. P. Clemmer, Milan	J. W. Allen, Rutherford	F. L. Roberts, Trenton
Giles	J. G. Waldrop, Lewisburg	A. W. Deane, Pulaski	F. Booth, Pulaski
Greene	W. T. Mathes, Greeneville	M. A. Blanton, Mosheim	I. F. Phillips, Greeneville
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Montague
Hamblen	W. E. Howell, Morristown	R. A. Purvis, Morristown	P. L. Henderson, Morristown
Hamilton	E. A. Gilbert, Chattanooga	A. M. Patterson, Chattanooga	J. Marsh Frere, Chattanooga
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		V. H. Crowder, Lawrenceburg (Lawrence)	
		Paul Wylie, Hohenwald (Lewis)	
		J. W. Frost, Linden (Perry)	
		J. T. Keeton, Clifton (Wayne)	
Haywood	F. P. Hess, Bells	John P. Shearon, Gates	Roy M. Lanier, Brownsville
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		R. S. Perry, Columbia, R. F. D.	
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Monroe	R. C. Kimbrough, Madisonville		David M. Cowgill, Madisonville
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Obion	M. T. Tipton, Union City	F. B. Kimzey, Union City	W. B. Harrison, Union City
Overton			A. B. Qualls, Livingston
Polk	A. W. Lewis, Copperhill	H. P. Hyde, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	R. L. Witherington, Cookeville	Thurman Shipley, Cookeville
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Rutherford	T. J. Bratton, Woodbury	John F. Cason, Murfreesboro	J. A. Scott, Murfreesboro
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		J. R. Butler, Mountain City (Johnson)	
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Weakley	J. E. Taylor, Dresden	T. W. Jones, Martin	P. W. Wilson, Dresden
White	C. Blankenship, Sparta	A. A. Bradley, Cookeville, Route 3	A. F. Richards, Sparta
Williamson	J. Knox Galloway, Franklin	W. F. Roth, Jr., Franklin	K. S. Howlett, Franklin
Wilson	M. H. Wells, Watertown	R. N. Buchanan, Jr., Lebanon	R. B. Gaston, Lebanon



## COMMITTEES

The following is a list of the standing committees of the Tennessee State Medical Association provided for in the constitution and by-laws and appointed by the proper authority, together with some special committees appointed under the authority of a resolution by the House of Delegates.

Some of the committees are appointed for a definite period. In such instances the appointment of the committeeman expires with the meeting of the House of Delegates in the year stated opposite his name.

### COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville.  
Dr. A. F. Cooper, Memphis.  
Dr. Frank Harris, Chattanooga.  
Dr. A. H. Lancaster, Knoxville.

### STATE TUBERCULOSIS COMMITTEE

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Dr. O. N. Bryan, Nashville.  
Dr. C. M. Oberschmidt, Memphis.  
Dr. J. L. Hamilton, Chattanooga.

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Dr. E. H. Baird, Dyersburg.  
Dr. E. A. Gilbert, Chattanooga.  
Dr. E. G. Wood, Knoxville.  
Dr. H. B. Everett, Memphis.  
Dr. Lee K. Gibson, Johnson City.

### COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. L. W. Edwards, Chairman, Nashville (1939).  
Dr. E. W. Cocke, Memphis (1941).  
Dr. Battle Malone, Memphis (1940).  
Dr. Tom Barry, Knoxville (1938).  
Dr. T. R. Ray, Shelbyville (1942).

### LIAISON COMMITTEE

Dr. W. C. Dixon, Chairman, Nashville (1941).  
Dr. W. P. Wood, Knoxville (1940).  
Dr. Hiram A. Laws, Chattanooga (1939).  
Dr. Tom Mitchell, Memphis (1938).  
Dr. Tom R. Barry, Knoxville (1942).

### COMMITTEE ON INSURANCE

Dr. A. F. Cooper, Chairman, Memphis.  
Dr. C. M. Hamilton, Nashville.  
Dr. S. R. Miller, Knoxville.

### COMMITTEE ON MEDICAL DEFENSE

Dr. S. R. Miller, Chairman, Knoxville.  
Dr. H. B. Everett, Memphis.  
Dr. H. M. Tigert, Nashville.

### ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. B. F. Byrd, Chairman, Nashville.  
Dr. Oliver Hill, Knoxville.  
Dr. Percy Wood, Memphis.

### COMMITTEE ON EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1940).  
Dr. R. B. Wood, Knoxville (1938).  
Dr. D. W. Smith, Nashville (1940).  
Dr. H. B. Gotten, Memphis (1938).  
Dr. W. O. Baird, Henderson (1939).  
Dr. J. M. Lee, Nashville (1939).

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*Hardin, Lawrence, Lewis, Perry, and Wayne Counties:*

The Five-County Medical Society held a meeting at Linden, Tennessee, August 31.

The following papers were read:

"The Program of a County Health Unit," by Dr. J. W. Erwin, Savannah. Discussion opened by Drs. J. W. Frost, Linden, and Herman Hawkins, Jackson.

"Cancer of the Breast," with slides, by Dr. J. W. McClaran, Jackson. Discussion opened by Dr. W. E. Turner, Flatwoods.

"Encephalitis," with report of a case, by Dr. Leo C. Harris, Lawrenceburg. Discussion opened by Dr. F. H. Norman, Waynesboro.

"The Treatment of Dysentery," by Dr. John M. Lee, Nashville. Discussion opened by Drs. C. V. Stephenson, Centerville, and W. E. Boyce, Flatwoods.

A luncheon was given at the Rainey Hotel for the physicians.

The next meeting will be held at Waynesboro, September 26.

## ABSTRACTS OF CURRENT LITERATURE

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

Anoxemia in Nitrous Oxide Anesthesia. W. Lawrence. Current Researches in Anesthesia and Analgesia, July-August, 1937.

When a patient is saturated with nitrous oxide with just sufficient oxygen to sustain metabolism, an increase in nitrous oxide or a decrease in oxygen results in anoxemia. Anesthesia should not be deepened unless some other anesthetic agent is added that does not require further reduction in oxygen.

Symptoms of oxygen want are easily recognized. They are increased depth of respiration, cyanosis, clonic muscle spasms, convulsive vomiting, and cessation of vital functions. Excessive cyanosis over a long period of time has been shown to produce parenchymatous degeneration of various tissues and organs.

Impure nitrous oxide diluted with too much nitrogen renders the gas unsuitable for anesthesia due to inability to obtain the necessary percentages of the gases. In his conclusions the author emphasizes the harmful effects of anoxemia and the necessity of adding some other agent when suffi-

cient anesthesia is not obtained for the contemplated surgery.

### DERMATOLOGY

By E. E. BROWN, M.D.  
Doctors Building, Nashville

Calcium Metabolism in Scleroderma. Theo. Cornbleet, M.D., and H. C. Struck, Ph.D. Archives of Dermatology and Syphilology, January, 1937.

A partial review of literature is presented. The results of studies of calcium and phosphorous balance on two patients is presented. Both calcium and phosphorous are retained in the body in scleroderma. Sclerodermic skin contains more calcium than normal skin. Excretion of calcium and phosphorous in urine is small. Viosterol markedly increased the output of both, and all of their series of eleven cases improved under the daily administration of 200,000 to 300,000 international units. The view that scleroderma is the result of hyperparathyroidism is discussed. Thyroid and parathyroid extracts proved of no value.

### INTERNAL MEDICINE

By R. B. WOOD, M.D.  
By D. R. THOMAS, M.D.  
Medical Arts Building, Knoxville

Value of Fever Therapy in the Arthritides. E. E. Simmons, M.D. American Journal of the Medical Sciences, Vol. 194, No. 2, August, 1937.

Since its founding in November, 1934, the University of Nebraska Fever Therapy Research Department, using the Kettering Hypertherms, has treated a total of one hundred seventy-two arthritic patients, and here report eighty-one cases.

Careful, thorough examination is made preliminary to the hypertherm treatment to determine eligibility and tolerance to the treatment, and the patient must be a "good surgical risk" before being submitted to the temperature of 106 to 107 degrees used in treating gonococcal arthritis. The lower fevers of 103 to 104.5 degrees used in the treatment of the other forms of arthritis do not require such strict examination.

In acute rheumatic fever with active endocarditis, six patients became inactive in an average of twenty-four days, with an average of five fever treatments. Three cases with an additional complication of chorea became inactive in an average of forty-six days, with an average of nine fever treatments. Simmons is encouraged by these results and feels that further trial of this therapy is justified.

In twenty-three cases of gonorrheal arthritis, eighty-two per cent were cured or markedly improved after an average of 26.4 hours of fever therapy at 106 to 107 degrees. He considers this the best therapy to date for these cases.

In combining fever therapy with dietary, sup-

portive, and orthopedic measures in the treatment of atrophic arthritis, he found the combination was of benefit in seventy-eight per cent of thirty-six cases treated. The age range was from fifteen to sixty-six, duration of the disease from four months to eighteen years, the sex distribution eleven males and twenty-five females. The average number of hours of treatment was 22.4 with temperature above 103 degrees. The author considers fever therapy as considerable value as an *ajuvant* in the treatment of chronic atrophic arthritis.

In ten cases of hypertrophic arthritis, five were not benefited, one was markedly improved, two moderately so, and two only slightly improved. Practically all cases were improved immediately after the treatment, but it was only transitory. Simmons feels that fever therapy is of little value in the usual uncomplicated cases of hypertrophic arthritis, but that those cases aggravated by superimposed trauma or infection are often benefited.

Simmons' conclusions are that mechanically induced fever therapy is a justifiable procedure in any form of arthritis, that other forms of fever production are not controlled, nor are they so safe. He feels that it is not adaptable to office practice, and should only be given by physicians and nurses who are well trained in artificial fever therapy.

**Gastrointestinal Symptoms from Cardiovascular Disease.** Harry Gauss, M.D. *American Journal of Digestive Diseases and Nutrition*, Vol. 4, No. 6, August, 1937.

Gauss mentions four cardiovascular diseases that sometimes produce pronounced gastrointestinal symptoms, namely, coronary disease, congestive heart failure, endocarditis, and arteriosclerosis; and while the mechanism of production of the gastrointestinal symptoms is different for each, the clinical syndromes may closely resemble each other.

Coronary disease produces gastrointestinal symptoms by a reflex action through the autonomic and vagus nerves; and no organic changes are found in the viscera to explain the symptoms. It may simulate any type of acute upper abdominal disease, but more often that of the gall bladder. It is the fatal "acute indigestion" of the newspapers. Such violent reactions have been seen after the ingestion of the dye for the gall-bladder dye test, in the presence of coronary disease, that he has discontinued it in all cases of possible coronary involvement.

Congestive heart failure causes gastrointestinal symptoms mainly through portal stasis and the resulting impaired nutrition of the abdominal viscera. The severity of the symptoms are directly proportional to the rapidity of the congestive failure, and may simulate acute gall-bladder disease. In rapidly developing congestive heart failure, where the liver, acting as a reservoir for the blood, rapidly becomes engorged, the capsule becomes suddenly distended, thus causing acute upper abdominal pain, distention, nausea and vomiting and may very closely simulate an acute gall bladder.

Endocarditis causes digestive disturbances, like congestive failure, primarily by producing changes in the abdominal viscera. The principal mechanism is the formation of emboli, which lodge most frequently in the spleen, producing infarcts. Symptoms are variable from mild to violent and may even be so severe as to simulate a ruptured viscus. Pain may be absent or severe, and when present is worse on deep inspiration. The spleen becomes palpable and tender, and a friction rub may appear. Vomiting of blood is a comparatively frequent occurrence in infarction of the spleen. Infarction of the spleen may terminate fatally through abscess formation, necrosis, and of the capsule, and peritonitis.

Arteriosclerosis produces gastrointestinal symptoms by causing organic changes in the vessels of the gastrointestinal tract. There are two stages of the digestive syndrome in this condition—the early and the late.

In the early stage dyspeptic symptoms, such as belching, flatulence, sour stomach or heartburn, epigastric fullness after eating, constipation, and headaches occur. In this stage response is obtained to dietary control, digestive therapy, and sedation.

In the late stage attacks of violent pain occur anywhere in the abdomen—usually in the epigastric or umbilical areas, however. The lesion responsible for the syndrome is the marked sclerosis of the mesenteric arteries. The duration of the pain varies from minutes to hours, and tends to occur two or three hours after meals. It may be severe enough to require morphine for relief. This pain is the so-called "angina abdominalis." The only demonstrable cause of the visceral pain is muscle contraction which is anoxicemic from an insufficient blood supply.

Gauss concludes that cardiovascular disease may simulate any type of intra-abdominal disease, most often suggesting acute gall-bladder disease, chronic gall-bladder dyspepsia, ruptured abdominal viscus, renal colic, lead colic, and malignancy. He states that "there are no pathognomic gastrointestinal symptoms of cardiovascular origin" and that "there is no royal road to an easy differential diagnosis of abdominal distress."

## OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.

Suite 316 Doctors Building, Nashville

**Delivery Following Stillbirth from Dystocia in Previous Pregnancies.** A. B. Hunt and R. D. Mussey, Rochester, Minnesota. *Journal of Obstetrics and Gynecology*, August, 1937.

The patient who becomes pregnant after having lost her first baby from dystocia presents a problem of more than ordinary interest. Her case represents a challenge to the attending physician to obtain a live and healthy baby with a minimum risk to the mother. This report includes thirty-three patients who had lost their first baby in labor



or shortly thereafter as a direct result of some form of dystocia.

An analysis as to the cause of the first still-birth revealed that operative delivery with its frequently accompanying trauma had been necessary in twenty-two cases. Bony disproportion was present in sixteen cases, while dystocia resulting from dysfunction of the pelvic soft parts had been encountered in five cases. Breech presentation was noted in six instances, a very high incidence. The injudicious use of pituitary extract explained the possible cause in three cases of stillbirths. The immediate maternal morbidity in these first deliveries was negligible.

The fact that a woman has lost a baby from dystocia does not indicate that elective Caesarean section must be employed routinely in subsequent deliveries. The variation in treating these patients has been given in detail with special attention directed to trial labor.

In viewing the results, there were fifty deliveries subsequent to stillbirth from dystocia in this series with but two fetal deaths. One of these deaths was due to a congenital anomaly, the death occurring on the eighth day.

Prenatal care is of special value in the type of case reviewed.

### OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
Doctors Building, Nashville

Retinitis of Stokers. D. Lyritzas. *American Journal of Ophthalmology*, August, 1937.

Two railway stokers each complained of diminished vision of the left eye. Examination revealed a central retinitis or chorioretinitis with a central scotoma. In one case the macula of the left eye showed a large round black spot, and the vision was one-fourth. In the other case the left macula showed a large, triangular, grayish-black spot, and vision was reduced to one-fiftieth. The right eye was normal in each case. That only the left eyes were involved may be explained by the fact that stokers turn their left face toward the fire. The author thinks stokers should wear dark glasses as protection against injurious rays.

Cataract Due to Dinitrophenol. E. E. Hessing. *American Journal of Ophthalmology*, August, 1937.

In nineteen women between the ages of thirty-two and sixty-three years, bilateral cataracts had developed after the use of dinitrophenol. Cataracts were removed from twenty-five eyes, and in eighty-eight per cent vision of eight-tenths or better was obtained. Complications before, during, and after operation were discussed and the data are presented.

### OTOLOGY, LARYNGOLOGY, RHINOLOGY

By W. W. POTTER, M.D.  
Medical Building, Knoxville

Osteomyelitis of the Skull. Frederick T. Hill, M.D. *Archives of Otolaryngology*, July, 1937.

The author compares two cases observed seventeen and fourteen years ago with two observed in the past two years.

This condition is fortunately rare and one's own personal experience is meager, consequently one depends largely on literature. The etiology, symptomatology, pathology are pretty thoroughly covered in the literature and are not discussed in this paper.

In 1913 McKenzie published the outstanding paper on this subject. A sure diagnostic sign is edema, often some distance away. "The disease burrows like a mole in the earth and, like a mole, throws up mounds here and there as it goes along." He quotes Killian as suggesting distant trephining and urged immediate and radical operation. "Wheresoever the disease has spread, there must the surgeon follow it."

In the first two cases reported by the author there was procrastination, hesitation, and doubt in the management of these cases. Edema was not considered of diagnostic significance as it would be today. They were slow in operating and were not as radical as in the later cases. They were inclined to follow McKenzie's admonition of differentiating between the discrete, self-limited type of the disease and the diffuse spreading form. In later years McKenzie stresses the necessity for radical surgical operation, regardless of the type. All writers are now agreed the chances for recovery are much better with radical treatment than with the more conservative policy. In 1933 Mosher and Judd based their paper on histopathologic studies and stressed the practical importance of edema as a diagnostic sign and as a guide to the extent of bone to be removed. They claim that the X-ray findings are from seven to ten days late and that the infection is from one to two inches beyond the area shown in the roentgenograms. "Osteomyelitis writes across the patient's brow, not only the diagnosis, but the treatment."

The author's third case was one of streptococcal infection following swimming. Mosher stated that the worst sinus infection and osteomyelitis follow swimming.

In the fourth case the osteomyelitis was secondary to an orbital abscess. The writer stresses the importance of edema as most important in the diagnosis, radical removal of the bone, and post-operative blood transfusions. The papers of Mosher and of Furstenburg have greatly facilitated the management of osteomyelitis of the skull.

## PEDIATRICS

By JOHN M. LEE, M.D.  
Doctors Building, Nashville

The Use of Sulfanilamide as a Urinary Antiseptic. Henry F. Helmholz, M.D. Section on Pediatrics, the Mayo Clinic, Rochester, Minnesota. *The Journal of Pediatrics*, August, 1937.

Following numerous reports of the successful use of sulfanilamide as a urinary antiseptic, the author learned from in vitro experiments that the drug has marked bactericidal action on all the common bacteria found in cases of infection of the urinary tract with the exception of the streptococcus faecalis. This bactericidal action is noted both in acid and in alkaline urines, being most marked in alkaline urine.

It was found that sulfanilamide supplies deficiencies existing in urinary antiseptics previously used. It is suitable and effective in acute or chronic cases, does not produce hematuria, and is effective in the presence of urinary stasis or reduced renal function, and it is not necessary to maintain the urine at a fixed degree of acidity or alkalinity.

The ease of administration of the drug is an advantage, the author giving the tablets after meals and at bedtime with no digestive disturbance noted. Although the dosage given was large, no anemia, dizziness, or headache was noted. "A girl five years of age, and a boy three years of age, each received twenty-five grains a day for four weeks and for two weeks, respectively. There were no ill effects from the treatment and the urine became sterile."

While the dosage is not yet finally determined, the author advises the following: For infants, 0.33 to 0.5 gram per day; for children two to three years of age, 0.5 to 1.0 gram per day; for children four to six years of age, 1.0 to 1.5 grams per day; for those five to eleven years of age, 1.25 to 1.75 grams per day; for those twelve to fifteen years of age, 1.5 to 2.0 grams per day. After four or five days of these dosages, the amounts can be reduced to three-fourths or two-thirds of the original dose.

Case histories of three children are given, all of whom had chronic urinary infections of long duration; all were rendered urine sterile after a few days' treatment with sulfanilamide. One five-year-old patient with urinary infection with streptococcus faecalis did not respond to this drug, but had the infection cleared up on mandelic acid. Hence, it is felt that sulfanilamide is a drug of great usefulness in urinary infections, but it cannot replace other urinary antiseptics entirely.

## ROENTGENOLOGY

By FRANKLIN B. BOGART, M.D.  
Medical Arts Building, Chattanooga

X-ray Therapy in Amenorrhea. Freidman, A. B., and Seligman, B. *Radiology*, Vol. 29, No. 1, P. 99, July, 1937.

The author points out that amenorrhea often occurs in women who have other symptoms of glandular dyscrasias and that such secondary amenorrhea may or may not be associated with tumors of the ovary, suprarenal, or pituitary glands. When such tumors do exist, there are usually fairly characteristic signs, such as defeminization or pituitary pressure symptoms.

The therapy of functional amenorrhea after the exclusion of local pathology including tumors is either by ovarian, pituitary, or thyroid substitution therapy or by radiation.

Successful treatment with female sex hormones have been reported by Zondek, Kaufmann, Loeser, Dunn, and others. The treatment, however, is costly, painful, and time consuming to the patient and physician.

Radiation therapy has been successfully used in functional amenorrhea over a considerable period of time, and results would warrant a much wider application of these methods. Van de Velde in 1915 reported the resumption of menstruation following the application of small doses of X-ray over the ovaries. Monn in 1920, Thaler in 1922, Rubin in 1926, and Kaplan in 1928 all reported the successful use of irradiation to the ovaries alone. In 1931 Kaplan first mentioned the use of ovarian and pituitary irradiation, and in 1933 Edelkin reported fifty-six cases with forty successes. All these workers have used extremely small doses of irradiation, far below the castration dose, and many of them have expressed the opinion that such small doses could not possibly have any injurious effect on the patient or any future offspring. The authors, however, feel that because the mode of action is not understood and because, theoretically, effects on future generations cannot be known, it is advisable to use irradiation to the pituitary gland first, and where satisfactory results can be obtained to restrict the application to the pituitary gland.

The dosage used by the authors is 200-250r administered at the sella and 100r or less delivered at the ovaries. The factors used were 200 kilovolts, five millimeters copper plus one aluminum filter and forty centimeters distance.

Although the exact mode of action is not known clinical proof is just accumulating that X-ray therapy to the pituitary and ovaries causes the return of menstrual function in a large proportion of cases suffering from functional amenorrhea, while in some cases menstruation is established permanently following one course of irra-

diation. In other cases subsequent irradiation is necessary.

A detail report is given on nine cases, in all of which favorable results were obtained, although permanent restoration of the menstrual cycle had not been obtained in all cases. All of these cases were obese and varied in age from eighteen to thirty-three years. In several instances pregnancy with a normal child resulted after years of sterility.

#### CONCLUSION

Nine consecutive cases of amenorrhea due to endocrinopathies were treated with small doses of irradiation and in all regular menstruation was reestablished. The treatment given is simple, harmless, and inexpensive. The endocrinologic stigmata other than the amenorrhea were not influenced by the treatment.

#### ABSTRACTOR'S NOTE

This report is interesting because so many gynecologists continue to neglect this mode of treatment. It is true that the exact mode of action is not known, but there is convincing clinical data that indicates the procedure is not only harmless, but that it produces good results in less time and at less cost than some of the other modes of treatment. In addition to the groups here discussed, good results have been obtained in growing girls who had excessive bleeding. In such cases irradiation to the pituitary gland should certainly be tried before either surgical procedures or ovarian irradiation is used.

### **SURGERY—GENERAL AND ABDOMINAL**

By BATTLE MALONE, II, M.D.  
1400 Monroe Avenue, Memphis

Congenital Hypertrophic Pyloric Stenosis in Infancy.  
Edward J. Donovan, M.D. *Journal of American Medical Association*, August 21, 1937.

The author has not found medical treatment with atropine and thick feeding successful and advocates surgical intervention as soon as the diagnosis is made except in a few mild cases which are nearly three months old. There is short hospitalization and the results are certain with surgical treatment which from an economic standpoint alone makes it more desirable.

The etiology is not known, but it is agreed that the essential feature is hypertrophy of the circular muscle at the pylorus. The tumor is usually about 2.5 centimeters in length and of cartilaginous consistency. The stomach may be four or five times its normal size, due to the almost complete obstruction.

The symptoms usually start between the second and fifth week. Vomiting is always projectile and the quantity vomited may be small at first, but later increases. There is no bile in the vomitus, but it may contain blood. Dehydration takes place with weight loss and emaciation developing. Visible peristaltic waves may be present after a feed-

ing. The author states that a tumor can always be felt if there is relaxation for the examination. The tumor is felt best when the stomach has been emptied with a small stomach tube.

Roentgenograms and fluoroscopic examinations are not necessary to make the diagnosis. Pre-operative preparation is the most important factor in lowering the operative mortality. If the baby is in bad condition, he is given one or two pre-operative blood transfusions and from one to four hyperdermoclyses of 100 cubic centimeters of physiological saline.

The Fredet-Ramstedt operation was used in every case. Open cone ether was used in all but three cases, procaine hydrochloride being used in these because of respiratory infections. A hot water bottle is placed under the child on the operating table. Just before the incision is made the stomach is emptied by passing a soft No. 18F catheter. An upper right rectus incision four centimeters long is used, one centimeter from the mid-line. The tumor is held between the thumb and index finger of the left hand and an incision is made over the tumor through the peritoneum and superficial part of the circular muscle. The muscle is then separated with mosquito forceps until mucous membrane completely fills the incision. Bleeding is usually controlled with hot pads or if necessary fine silk sutures. After the bleeding has stopped the pylorus is dropped back and the incision closed in layers.

Water is given two hours after operation and after four hours four cubic centimeters each of barley water and breast milk. The feedings are gradually increased in amount.

The author has operated 243 such cases with only one death.

### **SYPHILOLOGY**

By E. G. CLARK, M.D.  
Tennessee Department of Public Health  
Nashville

Syphilis—Some Psychologic Aspects of Treatment.  
Pearson. *Archives of Dermatology and Syphilology*, 23: 1021-1931.

Dr. Pearson of the child guidance clinic has some excellent observations of the psychologic factors encountered in the management of the syphilis patient. The nature of the disease, the duration of treatment long after symptoms have disappeared, and treatment more unpleasant than the early symptoms add problems not present in other infectious diseases.

Refusal to accept the diagnosis is met in some, the significance of the disease is hard to impress on many, and to others the diagnosis comes as a distinct shock. Over-reaction is almost universal in the case. There are definite factors that underlie the patient's reaction. More needful than legal enactment is that the doctor add to his knowledge of the symptomatology and pathology of the disease the effect of the diagnosis on the patient and his family and the reason for that effect.



The attitude of the public is that the patient is an outcast because of its link with abnormal sexual activity in spite of the fact that it is so often not the case. The author discusses this sex relationship and attributes some of the public's attitude to a feeling of envy and suppressed desire. It is partly based on the primitive type of thinking and partly on an unconscious motivation.

The effect of the public attitude on the patient also has an unconscious element in that the patient's thinking was along similar lines before his infection. It is a blow to his pride, his vanity, and his self-love. He is being punished for his wrongdoing. He may become hostile to the physician because of his knowledge of the case; may not be convinced because he does not want to be.

The syphilitic patient who opposes diagnosis and treatment and does not respect the public's health may be motivated by unconscious mechanisms over which he has no control. Coercive measures may increase the conflict. He needs the development of an emotional relationship with his doctor, a positive one which is as important as in the early stages of psychiatric treatment. The doctor should be interested in him because he has problems, not only those relating to syphilis.

The married syphilitic patient may react in a number of ways—hostility to doctor, to wife or to children. He may resort to dangerous compromises. The reaction of the marital partner is hard to predict. Even though the diagnosis is accepted in an understanding way, it may lead to a breach later on because of suspicions and withdrawal of affection unconsciously. Cases are given which illustrate the effect on children, or the partner's feeling for the children.

Thus both the patient and the disease must be treated. One cannot be carried to a successful conclusion without the other. We must remember we are dealing with human beings whose fears and anxieties bear a definite relationship to treatment.

### UROLOGY

By TOM R. BARRY, M.D., F.A.C.S.

By G. A. WILLIAMSON, JR., M.D.

Medical Building, Knoxville

The Effect of Surgical Drainage on Kidneys Declared Functionless by Present Tests of Renal Function.

Maurice George Schulhof, M.D. S. G. and O., Vol. 65, No. 2, August, 1937.

The authors state that the term "functionless kidney" has been used in rather a lax way. This originated from the fact that kidney function tests at our command show no function in certain organs which are indeed not functionless, in the strict sense of the word.

The majority of these cases are associated with, or are apparently due to, obstructive lesions at the ureteropelvic junction or below. The fact that a small stone lying in the kidney and not producing any high-grade obstruction may yet depress kidney function to the extent wholly misleading is well known. Experimental work from the effect of ureteral obstruction, both partial and complete, has been misleading. Older assumption that complete or partial obstruction of the ureter was followed by atrophy of the kidney has been disproved.

The most difficult point is to estimate the amount of recovery in a kidney when the obstruction is relieved. Joelson, Beck, and Moritz disagree with Hinman on compensatory hypertrophy, and state that in view of their experimental work, renal counterbalance need not be considered.

The cases studied in this series in which a diagnosis of functionless kidney was made were based on the history, physical examination, laboratory studies, including indigo, carmine, and PSP, cystoscopic investigation, and X-ray by means of intravenous urograms. A total of ten cases are analyzed, four females and six males, the ages ranging from nine to fifty-two, with an average age of thirty-five. The symptoms complained of averaged three years' duration. The infecting organisms are recorded.

Nephrostomy was done in eight cases, ureteroscopy in two. Definite improvement was noted in renal function in every case. In four cases it was equal to the normal side. He concludes that a kidney cannot be declared functionless except by exploration and drainage, and that many so-called functionless kidneys are valuable and should be preserved.

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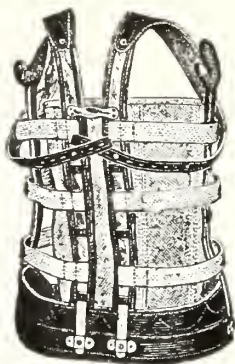
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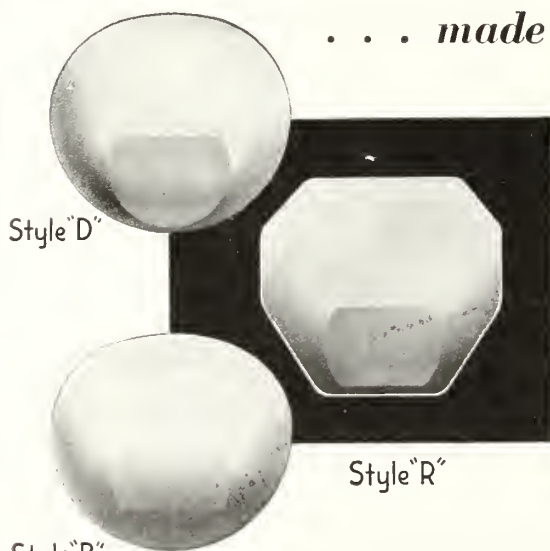
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No. 10

### THE INJECTION TREATMENT OF HERNIA\*

NORMAN L. HIGINBOTHAM, M.D.,\*\* New York

**M**R. CHAIRMAN and members of the Tennessee State Medical Association, first permit me to thank you for your warm welcome and for the privilege of appearing before you at this meeting.

Every unsolicited periodical and many of the subscribed-to journals that reach the doctor's office mention some phase of the injection method, and all the current literature directs attention to the favorable aspects of the method for the modern cure of reducible hernias. The recent symposium by Wangenstein<sup>1</sup> and his coworkers in the *Annals of Surgery* for March, 1937, leaves the profession with the assurance that the method is safe, sane, and sure.

The object of this method is to inject non-toxic solutions into the inguinal canal to produce an artificial proliferation of fibrous tissue, without suppuration, which will close permanently the defect in the abdominal wall through which the hernia protrudes. No attempt is made to inject solutions into the hernial sac. But the aim is to produce a fixed, firm, fibrous obturator, intermingled with muscle and fascia, which by its pressure acts as an internal truss to prevent the hernial contents from extruding beyond the internal ring.

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#### HISTORICAL

The principle of curing hernias by producing scar tissue in the inguinal canal goes back nearly two hundred years. One of the earliest applications of the hypodermic needle after it had been designed and adopted was in injecting iodine into the inguinal canal as a means of curing hernia. This was done by Velpeau nearly one hundred years ago. As early as 1843 Heaton, and later Warren, in 1881, applied this principle in America, and numerous reports by other surgeons soon followed. There appears to have been a lull in the literature from about 1900 to 1927, when Mayer's<sup>2</sup> report again stimulated interest and investigation of the method. Since that time the literature has been flooded with encouraging reports by authors too numerous to mention. For a complete bibliography see Bratrud's<sup>3</sup> latest article.

#### INDICATIONS AND CONTRAINDICATIONS

On the whole most authors seem pretty well agreed as to the indications and contraindications of the method, and as a general principle any hernia in which symptoms cannot be completely relieved by the proper application of a truss is not suitable for this form of treatment. Naturally, strangulated, irreducible and sliding hernias are surgical problems only. So also are hernias associated with undescended testicle. At first only the oblique inguinal hernias were recommended for this treatment, but as the technic improved



it was applied to all varieties of hernias, including direct, femoral, umbilical, and recurrent types. Also considered as definite contraindications are certain constitutional diseases, such as marked obesity, syphilis, hemophilia, various neuroses, and toxic goiter.

#### SOLUTIONS

Some of the earliest solutions used were preparations of phenol, zinc sulphate, tincture of iodine, and paraffin. Practically all these have been abandoned as being too dangerous. There are now a great many solutions on the market, each claiming some point of superiority or safety over all the others. The great majority of these depend upon the astringent action of some form of tannic acid. To this main vehicle may be added small quantities of Thuja, gallic acid, guaiacol, or rarely, phenol. To mention by name a few of these well-advertised solutions, we have Proliferol, Neo-Plasmoid, Sylasol, Pina Mestre solution, Galtanol, Mayer's solution, and O'Malley's solution. And Thuja is sometimes recommended alone. A typical formula might consist of the following ingredients; *vacinium myrtillus*, catechu, monesia, *krameria*, *rosa canina*, guarana, mulberry, and blueberry in various proportions.

#### TECHNIC

The technic has been adequately described without much variation in all the articles that have appeared to date. Before any injections are given a well-fitting truss is applied and tried for a few days to be sure that it will control the hernia completely. Various types of trusses should be on hand, so that one may be selected to suit the requirements of the individual case. The patient must be made comfortable on a flat table in a slight Trendelenberg position, and the hernia completely reduced. The hair is clipped from the region and before each injection the skin is cleansed with alcohol.

As a rule, in indirect hernias injections are begun at the internal ring and, when this region has been sufficiently infiltrated, are then carried down the inguinal canal and finally the external ring is blocked off. In direct hernias one usually begins at the

external ring, and after the entire inguinal canal has been injected a few extra injections are placed in Hesselbach's triangle. However, some surgeons always begin at the external ring.

Practically all the solutions in use require a preliminary injection of a small quantity of novocain after the needle point has been inserted to the level of the proposed injection. Care must always be exercised to exert suction with the syringe before injecting, lest a vein should have been entered.

From ten to twenty injections are usually required to close the hernia, but one always gives three or four more injections than would seem necessary in order to insure adequate treatment. The amount injected at each treatment depends, of course, upon the type of solution used and the reaction of the patient. The intervals between injections vary according to the individual patient. Some can stand a treatment daily; others prefer weekly intervals. Twice a week would seem to give the ideal time interval. It is essential, before any injections are given, to note carefully the size of the testicles as it is not infrequently found that one, or both, testicles appear smaller than normal. This preliminary notation may save considerable embarrassment later, when diminution in size may be attributed to the injections.

Some swelling in the cord or scrotum may be noticed with the first few injections. This usually subsides in time, and does not constitute a contraindication to further injections.

#### EVALUATION OF RESULTS

After the course of injections has been completed the patient should return weekly for checkup examinations. It may be found necessary to give one or two additional injections at any spot that appears to be weak. A truss should be worn night and day for a period of three months, and during the fourth month it may be left off at night only. Finally the truss can be discarded altogether. However, the treatment does not end here, and no case can be considered adequately treated that is not followed for a long period thereafter. It is

essential in arriving at definite conclusions as to the effect of the treatment to follow these cases, not for three months after the truss has been discarded, but for a period of at least a year, and preferably longer. Very few of the papers which I have read give any definite indication as to the length of time that treated cases have been followed, and judging from most of the reports I am led to believe that the follow-up is entirely inadequate. We, therefore, have startling reports of ninety-eight per cent cures. Bratrud himself states that the recurrence rate should not exceed ten per cent.

To my mind the most honest analysis has been given by McKinney,<sup>4</sup> in Wangenstein's symposium, in which he followed his cases from six months to three and a half years. He had fifty recurrences, which he estimates at seventeen per cent of 300 treated cases. As I analyze his statistics, I would determine the correct figure to be 21.7 per cent recurrences based on 230 followed cases. In judging the results of injected cases the same criteria as are applied to operated cases should still hold, and the recurrence rate should be based on followed cases.

At a recent meeting of the New York Surgical Society<sup>5</sup> we presented the results of 1,485 Gallie fascia operations for all types of difficult hernias. In computing our recurrence rate we excluded all cases that had not been followed for at least a year, unless they recurred in the first year. Many of our cases had been followed for a much longer period, some up to twelve years. If based on the total number of cases operated upon, the percentage of recurrences in less than one year is extremely low (7.2 per cent). It is higher (10.9 per cent), if the true percentage is based only on followed cases. It is much higher (29.1 per cent), if these cases are followed up to twelve years. Furthermore, by followed cases we mean cases that have been personally examined in the clinic by one, or more, of the attending staff. Letters, hearsay, and telephone calls were totally disregarded, as they were found to be entirely unreliable.

Obviously then no statistics on the injection method are of any real value unless

the treated cases are personally examined at least one year after the truss has been removed.

#### RUPTURED AND CRIPPLED HOSPITAL SERIES

(Presented at the New York Surgical Society by Carl G. Burdick and Bradley L. Coley, March 24, 1937.)<sup>6</sup>

Having heard a good deal about this method and being in a position to conduct a well-controlled series of cases, we acquainted ourselves with all the foregoing facts. We then determined to try a series for our own information and enlightenment, which we felt sure would be of value to those who look to us for a critical analysis of any new departure in the treatment of this common physical disability.

Accordingly we had a prominent proponent of the method visit us and instruct us in the details of the method, giving the first few injections himself, until we were thoroughly familiar with all the technicalities.

We then treated sixty-six patients and, as several of these had both sides involved, we are able to report a series of ninety-two hernias. Sixty-four were males and two females. The youngest patient was twenty-three years and the oldest eighty-two years of age, the average age being fifty years. The majority of the cases were inguinal hernias, forty-eight being indirect and thirty-seven direct. But we included four ventral hernias, two femorals, and one umbilical in the series. Thirty-one were recurrent after one or more operations.

We began by using Pina Mestre solution and had already treated forty-two cases when other preparations were presented to us as being equally, or more, efficacious. We accordingly tried all that seemed meritorious, so that Galtanol was used in six cases, O'Malley's solution in two, Thuja in two, and Proliferol in one. Thirty-nine cases were treated with various combinations of two or more of the above, as we found that the originally selected solution did not seem to effect the desired result. The largest number of injections given to any one case was thirty-six, and the average number was twenty-one.

Very few of the patients complained of

any symptoms. Four patients had slight pain, and one severe pain. One experienced a severe chill after an injection; one suffered headache, nausea, and anorexia; and one complained of dysuria.

There were no serious complications. Worthy of mention are one instance each of edema of the leg, herpes labialis, hydrocele, and slight testicular atrophy. Two cases had swelling of the testicle, and one had evidence of infection, which subsided under local treatment and did not require drainage. We had three cases of definite impotence in our series. A review of the literature reveals a nonchalant attitude towards this contingency. Whether the impotence is of a physical or psychoneurotic nature is beside the point. The fact remains that the condition arose following, or as a result of, the injections, and to us who have to deal with these patients it is a very real complaint. One complication, which I have noted in the literature, but which we have not experienced, was reported by Zieman<sup>7</sup> and is, namely, necrosis of the cord structures two weeks after one injection of Thuja.

When we came to analyze the results in our series after a careful follow-up we were greatly surprised, if not somewhat chagrined. Ten cases were lost to adequate follow-up examination (four had died of causes not related to this treatment, and six were not found by letter or social service).

The results in the fifty-six followed patients representing seventy-four hernias are shown in Table I.

TABLE I  
FOLLOWED CASES

	No. of Patients	No. of Hernias	Per- centage
Known failures* -----	45	58	78.4%
Possible Cures† -----	9	13	17.6%
Cures‡ -----	2	3	4.0%
Totals -----	56	74	100.0%

\*Eleven of these patients were later operated upon.

†No recurrence after six to twenty-three months, but still wearing truss and cannot be persuaded to go without this support.

‡Remain well nineteen to twenty months after removing truss.

## THEORY OF REPAIR

One immediately asks the question, "Why is our recurrence rate so high?" Our only explanation is that we followed our cases for a reasonable time, and we feel that others would find the same discouraging results if all their cases were as well followed. True enough, we were agreeably surprised to note how firm the inguinal canal could be made by the injection of proliferating solutions, but we were chagrined to note at a later date how this fibrous tissue seemed to disappear.

According to McMillan,<sup>8</sup> "it has been found that in cases in which methylene blue is injected and the patient subsequently operated upon, the methylene blue has been deposited quite accurately in the area for which it was intended. When the external ring is injected the methylene blue is seen to travel along the lymphatics to the internal ring, thus spreading through the entire area of the inguinal canal."

And in operating on hernias that had been subjected to injections we frequently found dense connective tissue in and beneath the external oblique aponeurosis and a firm, thickened, unyielding internal ring. The entire success of the method depends on the formation of scar tissue, which is, as is well known, the least satisfactory form of healing from the standpoint of stability.

In a recent editorial in the *American Journal of Surgery*,<sup>9</sup> the late William B. Coley called attention to McBurney's experience in this regard. After removing the sac McBurney purposely left the inguinal wound wide open and allowed it to heal by granulation tissue on the theoretical ground that the scar tissue thus produced would fill the entire inguinal canal and act as an effective barrier against recurrence. "It was soon noticed, however, that the supposedly firm barrier of connective tissue, after about six months, gradually became thinner and then began to stretch and yield to pressure at the weakened internal ring, a well-marked recurrence developing a few months later."

This process of temporary fibrosis and subsequent dissolution has been conclusively demonstrated by Dr. Frank A. Kelly of



Detroit in experiments on dogs. I am greatly indebted to Dr. Kelly for lantern slides illustrating the result of his experiments. (These were projected on the screen at the meeting.)

The first step was to demonstrate the reaction in dog muscle ten days after the injection of different standard solutions. In each instance a section of normal adjacent muscle was included for its comparative value.

*Solution A*—Described as a five per cent solution of fatty acids of vegetable oil extracted from psyllium seed, showed at ten days many monocytes and wandering cells, very few polys, and many fibroblasts.

*Solution B*—Described as chloratone and potassium guaiacol sulphonate, showed at ten days less connective tissue, many monocytes, and no polycystic infiltration.

*Solution C*—Described as a distillate from the tinctures of several botanical herbs to which is added thymol, tannic acid and benzyl alcohol, showed a looser tissue arrangement and lesser formation of connective tissue at ten days.

*Solution D*—Described as a hydroalcoholic extract of gallotannic acid, which is practically a ten per cent extract with a fifty per cent alcohol and water menstruum of rhatany, geranium, gambier, and blueberry, showed at ten days much monocytic infiltration and very few polys.

The next step in the experiment was to determine the subsequent fate of the tissue thus produced, and Dr. Kelly proceeded by taking sections in a well-controlled series of dogs at ten-day intervals with the following notations:

At twenty days: considerable fibrosis with some poly infiltration.

At thirty days: some fibrosis and a few polys.

At forty days: a small amount of fibrosis and many small round cells.

At fifty days: a small amount of fibrosis and a few small round cells.

At sixty days: a large group of small round cells.

At ninety days: nearly normal muscle, little fibrosis, and an occasional small round cell.

As Dr. Kelly logically concludes, "If we could maintain the original condition which we see produced at ten days, we could probably cure a large percentage of hernias."

However, no solution has yet been devised that will maintain this tissue. Which brings us back to what Billroth said in 1880, namely, "If anyone can obtain a solution that would cause a permanent artificial proliferation of tissue that would be as dense and tough as fascia, the radical cure of hernia would be solved."

#### SUMMARY

The statistics presented by practically all authors to date would encourage all practitioners to treat simple reducible indirect and direct hernias, when there are no constitutional contraindications, by the truss injection method. It is recommended that only surgeons with a knowledge of the anatomy who have had experience in hernia surgery who have mastered the technic should give the treatments. The series of cases treated and followed for a sufficient length of time at the Ruptured and Crippled Hospital in New York do not substantiate these claims. So we are forced to condemn the truss injection method. We feel that there are very few cases in which it merits even a trial. It may be a useful adjuvant to palliative truss treatment.

The theoretical advantages of this method seem very great, and for the first three to six months after discarding the truss a cure appears to have been effected. If these hernias are followed for a sufficient length of time, the majority of them will be found to have recurred. The oft-quoted figure of ninety-eight per cent results is undoubtedly correct, but, in my opinion, represents failures, not cures.

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## UROLOGY

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By DR. H. P. HYDE, M.D.  
Copperhill, Tennessee

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### Sulfanilamide in the Treatment of Gonorrhea

I have used sulfanilamide in many different infections, but have found it unusually successful in the treatment of gonorrhea.

From twenty-four cases of gonorrhea I have successfully cured twenty-two with sulfanilamide alone within four to five weeks from the time of onset. Giving doses of two to four five-grain tablets every four hours for the first week and one five-grain tablet every four hours after that until the patient ceases to have a discharge. The other two cases were very far advanced when I first saw the patients, but with the combined treatment of sulfanilamide and the gonococcus mixed bacterial antigen intermuscular I am obtaining results.

I have cautioned my patients, to whom I have been giving sulfanilamide, not to use magnesium or sodium sulfate. I have checked their hemoglobin from time to time without finding any change, however, I had one patient, to whom I had been giving sulfanilamide over a short period of time, forget my instructions and take one-half ounce of magnesium sulfate. After keeping close check on this patient for over a week I have not, as yet, found any ill effects.

In my opinion sulfanilamide could be called a specific in gonorrhea, however, I wish to stress the fact that this drug should, under all circumstances, be used with caution, and with the patient under careful observation.

## CORONARY ARTERY DISEASE

## Some Observations on the Treatment of Its Acute Episodes with Coramine (Pyridine-B-Carboxydiethylamide)

E. R. TIMMONS, M.D., Grand Junction

SINCE HERRICK<sup>1</sup> pointed out so clearly the diagnostic features of coronary occlusion, this entity has been diagnosed progressively more frequently in my series of patients—and such has doubtless been the experience of most general practitioners. For this reason alone, the proper treatment for the patient with this pathology has become increasingly important and likewise interesting. A greater stimulus to our therapeutic endeavors in behalf of these patients will prevent the frequent fatal end result, or a permanently handicapped member of society. Certainly timely is the recording of clinical observations that will aid in our prolonging and rendering more useful the lives of these patients. On the other hand the creation of confusion and the befogging of therapeutics by the production of a voluminous bibliography on this subject should be guarded against.

For the purpose of this report clinical coronary artery disease is conveniently divisible into two phases, namely, acute and chronic. The former refers to the minutes, hours, or days when the patient is in the throes of the associated pain or is acutely, or subacutely, embarrassed by cardiac insufficiency. We have chosen to term these conditions "acute episodes"—the treatment of which is our present concern. The chronic phase includes all other times subsequent to making the diagnosis of coronary artery disease.

During these years my patients have been given the accepted treatment in vogue at a given time. Undoubtedly many of them, as well as their kith and kin, have painfully observed the insufficiency of our therapeutic endeavors. Even more keenly does the physician realize the need for a better therapeutic armamentarium. Because in our hands coramine (a twenty-five per cent aqueous solution of pyridine-B-

carboxydiethylamide) has met in part such a need, these clinical observations are contributed to the subject.

Brower and Korry<sup>2</sup> first, and later Winslow,<sup>3</sup> directed my attention to the use of coramine in coronary artery disease, though my frequent and successful use of this drug as a respiratory and circulatory stimulant began eight years ago. Hence, though with healthy skepticism, coramine was given in the following case presenting the characteristic features of acute coronary artery occlusion.

## CASE REPORT

White, married, female, age fifty-three.

*History.* — For the preceding twelve months patient had complained of (1) an aching and cramplike pain in precordial area, which pain was aggravated by physical exertion and during somatic fatigue, and (2) gaseous eructations associated with pains over chest and upper abdomen. Both were attributed to "indigestion."

The acute symptoms and signs came on very suddenly and were characterized by agonizing pain in the upper left chest and substernal area radiating into the left shoulder and down the inner aspect of the left forearm.

*Physical Examination.*—Marked cyanosis over entire body; cold, clammy sweat over face, forehead, and forearms; radial pulse hardly perceptible by palpation and superficial circulation essentially nil; respirations very feeble, shallow, and slow; patient semiconscious.

*Treatment.* — Morphine and atropine (H.T., M.S. grs. 1/4 and A.S. grs. 1/150) were promptly given hypodermatically and immediately followed by giving three cubic centimeters coramine in the same manner. Thirty minutes later the morphine and atropine were repeated, and fifteen minutes thereafter the coramine was repeated.



Patient was made comfortable, and heat applied externally.

*Observations.*—The morphine and atropine controlled the pain and associated emotional upset; however, the pulse continued to be feeble and dyspnea, cyanosis, and other evidences of circulatory failure remained alarming—and just here the patient received the second dose of coramine, following which in fifteen minutes she showed subjective and objective improvement characterized by a stronger and fuller pulse and less labored respirations. The third and fourth doses of coramine were given two and four hours later when the patient was much improved, though still seriously ill. For the night a hypnotic was prescribed. The next morning perceptible improvement was noted—dyspnea less pronounced, pulse regular and stronger, much less substernal oppression, and patient considerably more comfortable. Coramine by mouth (twenty minims) every two hours and a hypnotic at bedtime constituted the treatment on the second day. Under essentially the same regimen, the patient continued to improve in the usual manner of those who recover from such a severe episode.

This case, it should be said, is quite similar to the one to which Doctor Hepburn<sup>4</sup> of the Toronto General Hospital advised, before the Symposium on Cardiovascular Disease at the meeting of the Canadian Medical Association in 1934, the giving of two to three cubic centimeters of coramine intravenously.

Feeling that this striking outcome was attributable, at least in part, to coramine, I have since used that drug freely in four similar cases (one in the second attack and

one in the third) and in twelve cases of so-called chronic myocarditis with some coronary involvement—and without a fatality. Furthermore, no patient in this series failed to respond satisfactorily to this therapy. Such results may, it is true, be a happy coincidence in a small number of cases; nevertheless, in twenty years' practice I have never observed such striking results in so short a time as in this series of cases.

In that this report comes from the bedside observations of a general practitioner living in a rural community and working without the aid of all modern diagnostic and therapeutic equipment, no attempt has been made to enter into a discussion of the pharmacologic action of coramine or the pathologic anatomy and physiology concerned, for such is properly the field of others.

#### CONCLUSION

In the successful treatment of some severe acute episodes of coronary artery disease, coramine (pyridine-B-carboxydiethylamide) has been found to be a very valuable addition to my pharmaceutical armamentarium.

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## PERINEPHRITIC ABSCESS WITH REVIEW OF LOCAL CASES\*

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IN REVIEWING the available literature on perinephritic abscess, especially the articles by Bugbee,<sup>1</sup> Douglas,<sup>2</sup> Dickinson,<sup>3</sup> and Hunt,<sup>4</sup> I was astonished to find that the diagnosis of this condition has been a "stumbling block" to the internist, surgeon, urologist, and radiologist alike, and that the time elapsing from the beginning of symptoms to the institution of surgical treatment has not been appreciably shortened during the past three hundred years. This interval varied in the compiled series from twenty-three to fifty-nine days. The condition has been confused with influenza, typhoid fever, pleurisy, malaria, tuberculosis, cholecystitis, subphrenic abscess, septicemia, and ruptured appendix, and has been the cause of unnecessary abdominal operations in a large percentage of cases.

Abscesses of the perinephritic area are relatively rare, and diagnosis so difficult that many of the cases are diagnosed only at autopsy. The long period of delay and the high mortality leave much room for improvement both in the diagnosis and treatment.

The perirenal space is a separate area with its own blood supply and lymphatics and is called the perinephrium, which is that area behind the posterior peritoneum in the region of the kidney surrounded by a fascia known as Gerota's fascia. This fascia is in two layers, the anterior and the posterior. The anterior layer is continuous with that of the opposite side, passing over the vertebral column and kidney and bends dorsally to form the posterior layers. Above it is attached to the diaphragm, and below it dips into the pelvis. From the description it can be seen that in the early stages pus is confined around the kidney, and it is only when the fascia ruptures that it spreads.

The perinephrium has three sources of

blood supply. (1) a branch from the renal artery; (2) arteries which perforate the capsule of the kidney to terminate in end arteries in the fat that surrounds the kidney; and (3) branches which sometimes arise from the ovarian or spermatic arteries. The lymphatics of the kidney and perinephrium anastomose freely.

Perinephritic abscess may be classified as to origin into renal and nonrenal. In the renal the infection is due to an extension either through the lymphatics or from a direct rupture of an abscess in the kidney. In the nonrenal the infection reaches the perinephritic space, either by metastasis or extension from a retroperitoneal rupture of some other organ, such as the appendix, duodenal ulcer, or diverticulum. (Figure 1.)

It is generally believed that perinephritic infection is always secondary to infection elsewhere in the body, and even in the case where the tissue is traumatized and its resistance to infection is lowered, the hematogenous route is probably the source of infection. Among those who have reviewed a series of cases there is a difference of opinion as to the percentage of cases that originate in the kidney, because even in those cases in which the kidney is proved negative from all known examinations and tests, there may be present a small abscess in the parenchyma of the kidney, which may rupture through the capsule into the perinephritic space.

Reviewing this series of sixty cases, no lesion was demonstrated in the kidney in forty-two or seventy per cent; however, only fifty-one per cent of this series was cystoscoped. Carbuncles, boils, scabies, septic wounds, acute tonsillitis, otitis media have all been reported as the primary focus in the metastatic type, but it is often impossible to tell at the time of operation whether the abscess is renal or nonrenal.

Bugbee, in a review of all cases in St. Luke's Hospital, New York, during a period

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.

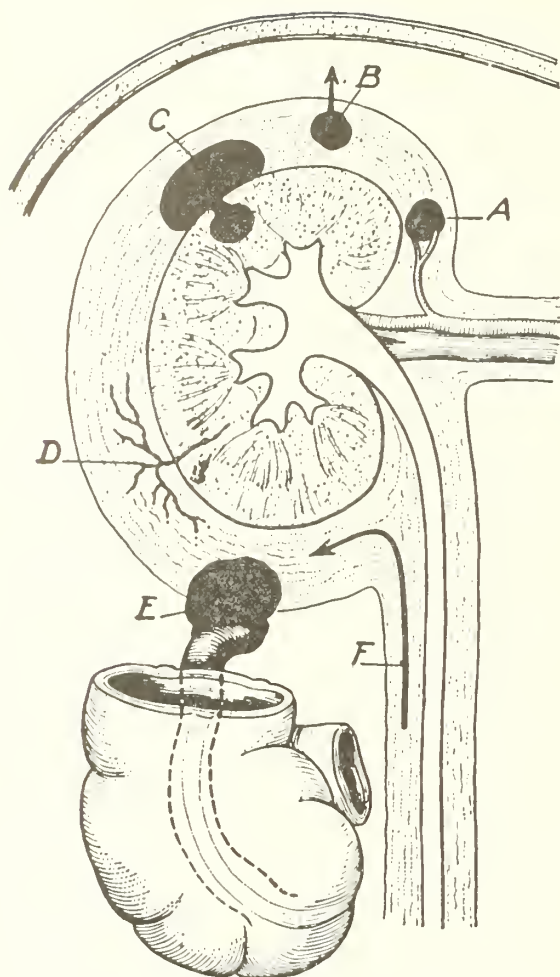


Fig. 1.—From Eisendrath and Rolnick *Urology*. Diagram to show sources of perinephritic abscess. A. Hematogenous form, foci of infection elsewhere in the body (see text).

B. Extension of perinephritic abscess to subphrenic space.

C. Extension of infection from cortical abscess of kidney to fat around it.

D. Same as C but by way of lymphatics.

E. Retrocecal appendiceal abscess extending to perinephric fat.

F. Extension of infection from prostate, etc., along periureteral sheath.

of fifteen years found only forty-one cases, ten in females and thirty-one in males. Campbell<sup>5</sup> found only eighty-three cases at the Bellevue Hospital in a ten-year period, and twenty-six of these were found at autopsy.

Robert J. Douglas, reporting his cases, found only eleven cases in 46,000 admissions. In our series sixty cases were found in the Nashville hospitals among 205,938

admissions. There were eight deaths or a thirteen and one-third per cent mortality.

The urologist should not be censured, for in most cases the only relation between perinephritic abscess and the kidney is their proximity, and the kidney may show no demonstrable pathology by a urological examination. Most of the cases are diagnosed by those doing general practice and only after all other causes of long continued fever have been eliminated.

Since the diagnosis is difficult you would not expect a set chain of symptoms. It may begin suddenly with a chill, high fever, pain in the back, profuse sweats, marked prostration, and rapidly developing anemia with early fatal result, if the abscess is not drained. Or the disease may begin with a general malaise or a low-grade temperature and vague and indefinite symptoms, and several months may elapse before the abscess can be diagnosed. One of the confusing elements is that the infection is frequently a complication of some other disease, and a serious infection may develop while the original lesion is being treated. The diagnosis at times may be fairly easy when there is a history of a carbuncle, or an abscess with a chill and pain in the costo-vertebral angle with continued high fever and a rapidly developing mass. There are seldom urinary symptoms except in those rare cases that have a very definite cystitis and pyelitis.

Physical examination usually reveals a sick and toxic individual, who may be anemic and emaciated, if the abscess has been present many weeks. There is tenderness over the kidney and particularly over the costovertebral angle. The abdomen may be distended and there may be muscle rigidity, but most of the rigidity is to be found in the muscle of the back. Breathing may be painful and there may be limitation of chest expansion. The diaphragm may be elevated and there may be associated a pleurisy which is due to the infection extending through the diaphragm by way of the lymphatics. The thigh may be voluntarily flexed to relieve the tension on the psoas muscle, confusing the picture with



appendicitis. There is present an indefinite fullness which can be palpated between the hands; a tender pointing abscess with fluctuation and redness of the skin is only found late in the disease. There is always present polymorphonuclear leucocytosis with a count varying from fifteen to thirty thousand. This series averaged 18,053. (Table I.)

TABLE I  
WHITE BLOOD COUNT

	Cases	Percentage
Below 10,000.....	4	7
10,000 to 19,000.....	33	57
20,000 to 29,000.....	17	29
30,000 to 39,000.....	4	7
Lowest Count.....	5,600	
Highest Count.....	36,600	

It is always desirable to cystoscope the patient and examine both kidneys for infection and function to show a normal kidney on the opposite side before operating on a perinephritic abscess, for the reason that intrarenal pathology of such importance may be found as to require a nephrectomy. A cystoscopy is very necessary in ruling out hydronephrosis or pyonephrosis but rarely reveals any direct evidence. Indirectly if it shows pressure on the calyces or some displacement of the kidney, or if a stereoscopic lateral ureterogram shows marked upward and inward displacement of the ureter, it suggests extraperitoneal pathology. The normal excursion of the kidney is one to two inches, as evidenced by radiograms in the supine and upright positions. If no displacement occurs, it is indicative of a fixed kidney and indirectly of an inflammatory fixation.

The X-ray is able to give important diagnostic aid in a high percentage of the cases and is often the only clue to a correct diagnosis. The typical X-ray findings were first described by Alexander in 1912. (Figure II.) He noted the disappearance of the shadow of the psoas muscle on the affected side, and obscuring of the shadows of the transverse processes of the lumbar vertebrae on the side of the abscess. He noted also an enlargement and decrease in density of the outline of the kidney shadow on the affected side. Another finding is a curvature of the vertebrae away from the ab-

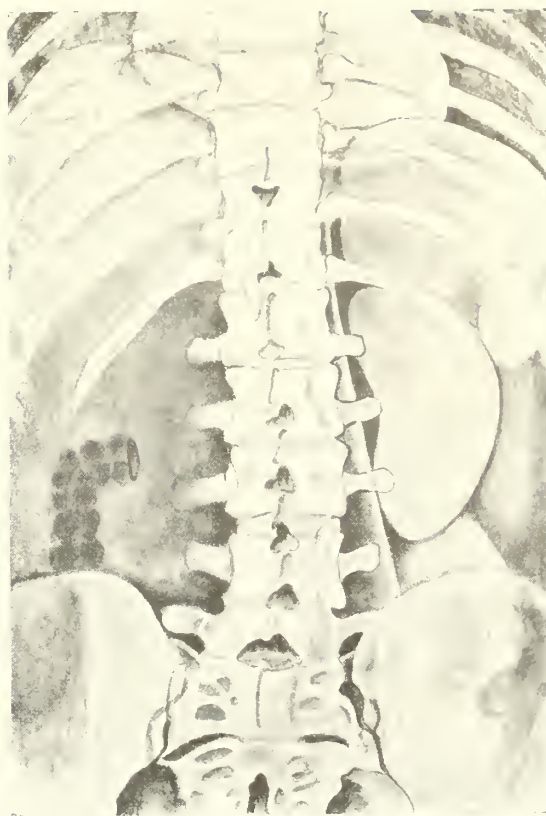


Fig. II.—A diagrammatic drawing illustrating the classical X-ray findings of a perinephritic abscess on the right. Note the disappearance of the shadow of the psoas muscle, and the kidney. Observe the indistinct outline of the transverse process of the vertebrae on the right and the slight scoliosis away from the affected side. The right diaphragm is elevated. The ascending colon is rotated toward the mid-line.

scuss. This scoliosis is caused by a contraction of adjacent muscles. Pancoast and Fussell<sup>6</sup> described the secondary sign of elevation of the diaphragm on the affected side. Another important sign is that the ascending or descending colon may be displaced toward the mid-line. This is revealed in a flat plate without barium, since there is enough gas in the large intestine to visualize the outline.

Shane and Harris<sup>7</sup> in a review of forty cases from the Mayo Clinic, which were proven by operation, and had been studied from the X-ray standpoint, came to the conclusion that an X-ray was of great diagnostic value, especially when combined with clinical data. In this series, which is the largest that I could find in the literature in

which a sufficient number of pictures had been made, the different diagnostic points that had been looked for were tabulated as follows:

"(1) The shadow of the psoas muscle was obliterated to some extent in all cases. (2) Some abnormality of kidney shadow was found in eighty per cent. (3) Scoliosis was found in forty-five per cent. (4) Elevation of the diaphragm in twenty-eight per cent. (5) Colon found displaced in twenty per cent."

Shane and Harris also went further in that they examined another series of plates in which abscess was not present and found that in ten per cent there was some obliteration of psoas muscle and in three per cent there was some scoliosis. Other pathological conditions which might cause this error are renal tumors, pyo or hydronephrosis, and psoas abscess.

#### CASE REPORT

G. T.—A well developed, well nourished white male, age 21. First seen September 20, 1936. Chief complaint, pain in the back in the region of the kidney. Temperature 101. Urinalysis showed many W. B. C., otherwise negative. The diagnosis of pyelitis was made and he was given treatment. He continued to run a high temperature with chills, sweats, and loss of weight. A week later his W. B. C. was 15,000 and his urinalysis was completely negative. He developed headache, nosebleed, pain in the chest, cough, rales in both lungs at the base, and Widal was negative. He complained of tenderness in the upper right quadrant, but no mass could be made out. On October 9, 1936, an X-ray was made which showed elevation of the right diaphragm, and the chest was negative. One week later another X-ray of the chest was made which showed "right side of diaphragm is elevated but smooth. Costophrenic angle is obliterated. Lungs clear. Conclusion: Pleurisy on right, small amount of fluid." Sputum negative. No mass could be palpated in abdomen but definite rigidity of the abdominal and lumbar muscles. A perinephritic abscess was suspected, but with the existence of a pleu-

risy and no palpable mass a definite diagnosis was not established.

Five days later the patient was cystoscoped and a normal kidney on the left was found. There was a delay in the appearance of the phthalein on the right. A flat plate was made which showed: (1) No stones. (2) Obliteration of psoas muscle. (3) Obliteration of transverse processes of the vertebrae. (4) Obliteration of the kidney shadow. (5) Displacement of ascending colon toward the mid-line. (Figure III.) Pyelogram showed "destruction of



Fig. III.—X-ray of case reported which shows absence of shadow of right psoas muscle, indistinct outline of transverse process of vertebrae, displacement of the ascending colon inward and downward.

the upper pole with considerable pressure on the pelvis suggesting a perinephritic abscess." (Figure IV.)

An incision in the flank under local and gas anesthesia was made and one pint of pus was evacuated from beneath the fascia. The kidney was not explored. The patient left the hospital in one week, but the wound drained for three weeks. He rapidly gained in weight and strength and four months later he was cystoscoped and the pyelogram revealed a normal kidney.



Fig. IV.—Same as Figure III after a pyelogram, which shows indirect evidence by revealing pressure on calyces. Also note the destruction at upper pole which is a cortical abscess that has ruptured in pelvis.

This case was the only one in the series that demonstrated direct and indirect evidence at the same time. There was a cortical abscess which ruptured both into the perirenal space and into the pelvis of the kidney. It is believed by many urologists that practically all perinephritic abscesses arise from small cortical abscesses but are not capable of demonstration by examination. In this case, if the abscess had not ruptured into the pelvis, the source of infection may not have been known.

In a review of the cases of perinephritic abscess occurring in local hospitals during the past twelve years, there were found sixty cases in 205,938 admissions. In number this series compares favorably with any other series which has been reported in the literature in the United States. More than 100 cases were reported from the Mayo Clinic, eighty-three from Bellevue, and 110 from the Massachusetts General Hospital. In the present series of sixty cases there were thirty-three males or fifty-five per cent. (Table II.) Twenty-seven females

TABLE II  
ANALYSIS OF SIXTY CASES OF PERINEPHRITIC ABSCESS

Average age	31 years
Sex:	
Male	33—55 per cent
Female	27—45 per cent
Average stay in hospital	32 days
Average duration of symptoms	29 days
Average W. B. C.	18,053
Average temperature	102.2
Renal pathology	18—30 per cent
No renal pathology	42—70 per cent
Side involved:	
Right	38—63⅓ per cent
Left	22—36⅔ per cent
Abdomen unnecessarily opened	11—18⅓ per cent
Mass palpated	54—90 per cent
Deaths	8—13⅓ per cent
Abscess found at autopsy	2—3⅓ per cent

or forty-five per cent. Thirty-eight cases on the right side or sixty-three and one-third per cent. Twenty-two on the left or thirty-six and two-thirds per cent. One case was bilateral. Of the sixty patients the abdomen was opened unnecessarily eleven times or eighteen and one-third per cent. Eight patients died in the hospital, or a mortality of thirteen and one-third per cent. Thirty-one patients were cystoscoped or had intravenous urography, or fifty-one and two-thirds per cent. The youngest patient was three and the oldest was sixty-eight. The average was thirty-one. (Table III.)

TABLE III  
AGE CLASSIFICATION

Age	Cases	Percentage	Deaths
0-9	3	5	..
10-19	10	18	1
20-29	14	24	1
30-39	14	24	2
40-49	11	19	2
50-59	4	7	1
60-70	2	3	1

Youngest Patient..... 3  
Oldest Patient..... 68

By a study of the age groups we find three cases in the first decade or five per cent, ten cases in the second decade or eighteen per cent, fourteen in the third or twenty-four per cent, fourteen in the fourth or twenty-four per cent, eleven in the fifth or nineteen per cent, four in the sixth or seven per cent, and two in the seventh or three per cent. One death in the second group, one in the third, two in the fourth, two in the fifth, one in the sixth, one in the



seventh. The average duration of symptoms was twenty-nine days. The average stay in the hospital was thirty-two days. Definite kidney pathology was demonstrated in eighteen cases or thirty per cent, and in the remaining seventy per cent nonrenal lesion was not demonstrated. (Table IV.)

TABLE IV  
FOCI OF INFECTION

Renal (18 cases—30 per cent):	
Pyonephrosis .....	9
Stones .....	4
Tuberculosis .....	2
Ruptured kidney .....	2
Cortical abscess .....	1
Nonrenal—(12 cases—20 per cent):	
Carbuncle or abscess .....	4
Trauma .....	3
Tonsilitis .....	2
Prostatitis .....	1
Endocervicitis .....	1
Cause determined in thirty, or fifty per cent of cases.	

Three patients or five per cent had nephrectomies. In thirty cases the cause of the abscess could be definitely located. Of these twelve were nonrenal and eighteen were renal infections. Of the renal infections pyonephrosis was found in nine, stone in four, tuberculosis two, ruptured kidney two, and cortical abscess one.

The nonrenal causes were tonsilitis two, carbuncles or abscess four, prostatitis one, endocervicitis one, pelvic pathology undetermined one, trauma three. Of the sixty cases which were studied in this analysis four had recurrences and were operated on the second time. It is interesting to note that of these four cases three had definite renal pathology which was not corrected at the original operation. In none of the cases was retroperitoneal rupture of the appendix assigned as the cause.

Pus was cultured from thirty or fifty per cent of these cases, and it was interesting to note that twenty or sixty-six and two-thirds per cent of these showed the causative agent staphylococcus aureus, and the colon bacilli in five or sixteen and two-thirds per cent. This is very conclusive that most of the cases are metastatic in origin, for in pyelitis approximately eighty-five per cent are due to colon infection. (Table V.)

TABLE V  
NATURE OF ORGANISM

	Cases	Percentage
Staphylococcus aureus.....	20	66 $\frac{2}{3}$
Bacillus coli.....	5	16 $\frac{2}{3}$
Streptococcus.....	2	6 $\frac{2}{3}$
Sterile culture.....	3	10

Thirty cases—fifty per cent—cultured

In all fairness to the series here reported it should be stated that the mortality is as low, the delay before the operation as short, and the results as good as those reported elsewhere in the literature. Viewing in retrospect this series of cases, considering the pathology, the laboratory findings, the X-ray plates, the pyelograms, and the clinical symptoms, the impression is gained that the diagnosis should have been established earlier.

The following brief report of two cases will illustrate my point. (1) A patient entered the hospital complaining of pain in the abdomen. An exploratory laparotomy was performed. The appendix was removed and the operator made a note at the time that the ureter on the right side seemed to be larger, was elevated from the posterior wall, and pushed toward the mid-line. However this patient continued to run a temperature from 101 to 104, was cystoscoped three times, and finally died of pulmonary embolus on the seventeenth day. At autopsy 800 cubic centimeters of pus was found, the ureter was raised from its bed and pushed toward the mid-line. This case emphasizes the importance of ureteral deviation as an aid in diagnosis. (2) A patient entered the hospital with a mass in the right flank. The abdomen was opened and found to be normal, the wound was closed, and a perinephritic abscess containing six or seven hundred cubic centimeters of pus was drained. This patient did well for a while and then had a recurrence of high temperature for which his right kidney was removed. Fever continued and a mass was located in the left flank. The abdomen was again opened and the mass was found to be retroperitoneal. The abdomen was closed and the abscess drained posteriorly. This case illustrates the extension along the fascial plane and explains the occasional bilaterality of these infections.

TABLE VI  
SUMMARY OF AUTHOR'S CASES

No.	Age	Sex	Hospital Days	Duration of Symptoms Days	Side Involved	Renal Pathology	Cause	Temperature	W.B.C.	Urine	Abdomen Opened Unnecessarily	End Result
1	22	F	21	90	Left	No	Unknown	100	5,600	Neg.	Yes	Cured
2	12	M	21	21	Right	No	Accident	103	18,000	Neg.	No	Cured
3	21	M	8	35	Right	Cortical abscess	Parenchymal abscess	102	15,600	Neg.	No	Cured
4	32	M	7	28	Right	No	Tonsilitis	102	26,000	Neg.	No	Cured
5	32	M	19	21	Right	No	Unknown	101	13,200	Neg.	No	Cured

## SUMMARY

1. Average age of patient.....	29 years
2. Sex: Male.....	4 cases
Female.....	1 case
3. Average stay in hospital.....	15 days
4. Average duration of symptoms.....	39 days
5. Side involved: Right.....	4 cases
Left.....	1 case
6. Average temperature.....	101.8
7. Average white blood count.....	19,680

I can afford to be critical, for I have been one of the chief offenders in errors in diagnosis. Fortunately I have had five cases which represent one of each type of perinephritic abscess. These cases are included in the series of sixty cases reported. (Table VI.) (1) A twenty-two-year-old female complained of pain, soreness, and tenderness in the back of three months' duration. Later there was soreness and tenderness in the lower part of the abdomen. When first seen five days before the operation, there was present a mass in the lower abdomen the size of a grapefruit. This mass had increased in size during menstruation and a diagnosis of ovarian cyst (perhaps chocolate cyst) was made. The abdomen was opened and the pelvic organs were found to be normal. The mass was aspirated and found to contain pus. The abdomen was closed and an incision was made in the flank. Five hundred cubic centimeters of pus from a perinephritic abscess was drained. This is the chronic type. (2) A twelve-year-old male received a severe blow in the back from a car accident several weeks before he became ill. There were present chills, high temperature, negative urine, high W. B. C., limitation of breathing on the right side, rales in basis of the lungs. A tentative diagnosis of pneumonia was made. After

several days a consultation was held and the consultant opened a perinephritic abscess. This is the type in which trauma plays a part. (3) The case which I have described in detail above resulted from a parenchymal abscess in the kidney. (4) The patient had suffered a severe attack of tonsilitis with high temperature. Following this there was pain in the back and chills, and he was treated one month in the home for typhoid fever by another doctor. A second doctor discovered the mass in the back which I later incised. This illustrates the metastatic type. (5) An individual who never had an abscess, tonsilitis, or history of injury developed pain in the back, high temperature, weakness, entered the hospital with a large mass which was incised and found to be a perinephritic abscess. This was the so-called idiopathic type in which the causative factor could not be found.

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### DISCUSSION

DR. A. D. MASON (Memphis): Mr. Chairman, Members of the Association: This society is indebted to Dr. Rippy for an excellent paper on a subject that needs more study. As has been pointed out to you, there is an average duration of symptoms of twenty-nine days before the correct diagnosis is made. This is most probably due to the fact that we do not consider perinephritic abscess as a possibility as often as we should when confronted with a septic patient who complains of indefinite abdominal pain, fever, chills, and leukocytosis. Another reason why the diagnosis is not made more promptly is because of failure to use the diagnostic methods available. Dr. Rippy has pointed out the valuable aid to the diagnosis in perinephritic abscess to be obtained from the urological examination and pyelography. If doubtful cases of abdominal pain or sepsis could be subjected to a complete urological study, much time and suffering could be saved and many unnecessary laparotomies could be avoided. Many cases of perinephritic abscess have a normal urine, and it has unfortunately long been a popular belief that normal urine should exclude any disease of the urinary organs and render further urological investigation unnecessary. However, even if the diagnosis is certain without cystoscopy, the condition of the kidney on the opposite side should be known prior to operation, because there are times when the abscess is found to involve a considerable portion of the renal cortex and nephrectomy is desirable if the other kidney is normal.

I have enjoyed Dr. Rippy's presentation very much.

DR. W. D. HAGGARD (Nashville): Mr. President and Gentlemen: I think we are indebted to Dr. Rippy for this very interesting and comprehensive study. Anyone who has ever gone to the trouble to review a large series of cases from their histories has done a very laborious piece of work, and this turns out to be very instructive.

I was impressed by the beauty of the X-ray examination as evidenced by his slide, and I really think that will give us a great deal of information that hitherto we have neglected. I think we lean more to the urological side, but when we think that there are three times as many cases of non-renal origin as there are of renal origin, we must depend upon these other adjuncts, such as roentgenology.

The other thing I think we must take into consideration is that anywhere from the cephalic end to and including the pelvis can be causative of perirenal abscess and moreover that it can come from so many different types of lesions of a metastatic character. I recollect very well the

first case I ever saw was a man who had been treated for typhoid fever for two months and without diagnosis or thought of anything else.

When I turned him on his face it was perfectly obvious there was a great big bulging right renal mass posterior; simple evacuation of the abscess cured his typhoid fever. I say he may have had typhoid. I have known it really to occur; we have all seen many typhoid abscesses.

I reported my first case in '98, but this was before the days of the Widal, and we had no way of knowing it except that he quickly got well.

I looked over our group and found that we had had twenty cases of perinephritic abscess. Of those, however, I threw out three because they were obviously of other types. For instance, one man had already had a suprapubic opening for an abscess in Retzius' space and subsequently he had perinephritic abscess and died of pneumonia. In other words, his real lesion was not primarily nephritic. One was clearly an appendiceal abscess. You note that there was considerable prevalence in this group of the right side, which always makes us suspicious of appendiceal abscess.

I think, as in this case we threw out and in numerous others, wherever we can possibly eliminate appendicitis we can put them in this group. For years I have advocated the incision of the appendiceal abscess posteriorly, and I believe it is very good surgery. Many is the time that I have wished that I was on the other side instead of the abdomen in the presence of an abscess. We always drain behind anyhow, even the appendix in the majority of cases, or should, and I have called attention repeatedly to my friends and students of the wisdom of opening an appendiceal abscess of an ancient character anywhere after the twelfth or fifteenth day where there is a frank bulging in the loin, from behind, and I have never had occasion to regret it.

Three of these operations on the kidney were of postoperative character. In one we resected the pole of the right kidney and thirteen weeks afterwards we evacuated the abscess, with recovery. Another one was associated with a sinus in a man who had been operated on elsewhere, in which we subsequently opened the abscess. A third was a patient who had had a stone impacted in the lower end of the ureter.

I also have had occasion to make a wrong diagnosis and open the abdomen, but when I saw that all of the organs were normal, the ones we suspected particularly, I simply turned the man over and drained his abscess, with recovery.

Of this group which corresponded closely to the figures that Dr. Rippy has given, we had, showing that we did throw out all the appendiceal cases as far as the sides were concerned, about an even number right and left. The sex was about equally divided, a little bit more in the male. We found that duration before operation varied from ten



days to seventy days, with an average duration of three and a half weeks. The amount of pus varied from a few ounces to three quarters, or an average of about a pint; the white cell count from 14,000 to 25,000, averaging about 17,000. In our cases all were adults except one boy.

Of the three deaths which we had in this series of twenty cases, fifty per cent mortality, one man had been taken ill on March 7 and his operation did not occur until April 27. He had a temperature of 101 with 25,000 whites; he already had a sinus behind his kidney and had previously had a sinus behind his kidney which had closed. The other case had the blockage of a stone of the right ureter. There were only a few ounces of pus. This was a sort of emergency operation as a last resort. The patient had a very rapid pulse in the beginning, very irregular, and lived only a few hours, although it was done under local, showing that the original lesion was the real cause of the death and the perinephritic abscess was accidental.

The last case of death was on the left side in a woman three weeks after labor. The tumor in the loin was the size of an adult head and it had already ruptured into the lungs and she had coughed up two pints of pus in eight hours. It was a staphylococcic affair, as the majority of these cases apparently are. There were three quarts of non-odorous material evacuated and no sutures put in at all, simply drained.

I think we are indebted to the doctor for his careful analysis of these cases, and, as has been said, it should put us on our guard for these cases. I believe if we approach them in that view our results in the future should exceed those that we have had in the past.

DR. ELKIN L. RIPPY (closing): I have some additional slides that the twenty minutes did not give me time to present.

This is the case report. You can see here very indistinctly that the right diaphragm is elevated.

In the second slide you can see where the right diaphragm is elevated with the costophrenic angle obliterated, with a basal pleurisy, with a small amount of fluid.

I particularly want to show this slide because it illustrates how the cecum or the ascending colon is pushed toward the mid-line. You see the gas in the large intestines, without a barium enema. You see how the psoas muscle is standing out plainly on left, how it is obliterated on right side, how the transverse process is obliterated on the right, and how plainly it stands out on the left. But you can also see that the cecum is pushed

toward the mid-line and the hepatic flexure is down.

This slide illustrates a pyelogram, and you can see here the small cortical abscess. This is the only one in a series of sixty cases that showed the direct evidence of a cortical abscess, indirect evidence by pressure on the calyces.

This is four months after operating, showing a pelvis that is approximately normal, but you can still see that the kidney is damaged some.

This slide illustrates how the ureter is deviated from its normal location. Here is the kidney, here a large abscess, and you can see how the ureter is pushed forward toward the mid-line. In this case the operator described the clinical picture, but still the patient was allowed to wait seventeen days to die of a pulmonary embolus because they did not appreciate the fact that something behind the peritoneum, an abscess, a tumor, is the only thing that will push the ureter toward the mid-line.

This is a diagrammatic drawing illustrating the second type of case where a man develops abscess on one side, has his abdomen opened, and then the perinephritic abscess is drained retroperitoneally. This shows how it is possible for the pus to extend across on the other side and form an abscess on the other side.

This is simply an analysis of the white blood count showing the lowest count 5,600 and the highest 36,000.

This is a summary of my own cases. In the first case you can see I opened the abdomen. The white blood count was 5,600. She had symptoms for ninety days and came in with a mass in the lower left abdomen. She claimed that it increased on menstruation. I thought she had an ovarian cyst. I found a mass retroperitoneally after opening the abdomen. I put a needle in and drained pus and closed the abdomen and drained retroperitoneally.

The next case developed chills, high fever, negative urine, white blood count, and I treated for pneumonia for eight days. The people became dissatisfied, I became confused, they got another doctor, and he opened and found an abscess.

The next case was a man who developed tonsillitis and was treated in the home one month for typhoid fever. A second doctor had seen him and recognized the condition.

The fifth case was a man who came in without any known cause for the abscess. The developed abscess was incised.

Of these five cases every one made a recovery.

## GAS GANGRENE—ITS PREVENTION AND TREATMENT\*

BATTLE MALONE, B.A., M.D., Memphis

FROM THE GREAT number of cases of gas gangrene which are being reported with increasing frequency, we must conclude that the possibility of its occurrence is always present and there is little that we can do to lessen this possibility. The anaerobic germs which produce this disease are excreted from the alimentary tract of both carnivorous and herbivorous animals, including man, and for that reason it is essentially a disease due to pollution of the soil, and the older and more thickly settled a country becomes the greater is the pollution of the soil. Wounds which are contaminated with dirt in stable lots, in gardens, or on public highways are particularly susceptible to infection with anaerobic germs. Urban Maes<sup>1</sup> calls our attention also to the danger of infection through contamination from woolen clothing and bed clothing. This opinion was based on the fact that no case of gas gangrene occurred in the Charity Hospital except during the winter months. There are many anaerobic microorganisms, but most of them are not pathogenic.

During the war, before America entered, the problem of gas gangrene had been pretty definitely worked out by the Pasteur Institute, and it was their conclusion that there were but three microorganisms to be feared, these were: The *Perfringens*, which is the same as the *Bacillus Aerogenes Capsulatus* or, as we in America now know it, *Bacillus Welchii*, so named for its discoverer; the *Vibrion Septique* (*Bacillus Oedematiens Maligni*), and the *Bacillus Oedematiens* (*Bacillus Bellonensis*). Other anaerobic organisms found in cases of gas gangrene are thought to be present only by sympiosis. French surgeons, by concentrating their attention on these three bacilli, were much more successful in reducing the mortality of the disease.

In this country it seems to be a definite,

established fact that the *Bacillus Welchii* is the prevailing or greatly predominant infecting organism. Elliot and Easton<sup>2</sup> in reporting seventeen cases state that the *Bacillus Welchii* was the causative factor in all. In 1931 a committee from the New York Hospital for Bone and Joint Diseases concluded that all gas infections in this country were caused by the *Bacillus Welchii*. The reason for stressing this fact will be brought out later when discussing the use of sera in the treatment.

While it is possible to have gas gangrene in any wound (cases have been found where it developed after a simple hypodermic injection), there are certain types in which we fear it most—cuts, lacerations, and especially in compound fractures incurred around barns or stable lots, in gardens, or any fertilized plots, or on our highways are particularly liable to be contaminated by anaerobic microorganisms, and this is equally true of gunshot wounds through woolen clothing.

It is in such wounds, especially where there is much laceration of muscle, that gas gangrene develops. It manifests itself in a short while, usually in the first twenty-four hours, rarely later than thirty-six. The signs and symptoms are easily recognized. There is marked edema, rapidly increasing, due to the formation of gas in the muscles, extending rapidly up the fascial planes and escaping from the wound, giving definite emphysema on palpation. The peculiar sickening, sweetish, foul odor is unmistakable. The muscles affected have the appearance of parboiled beef. The enormous tension of the imprisoned gas quickly causes interference with the circulation. Thrombosis of the main vessels and massive gangrene quickly occur. Constitutional symptoms of profound toxemia, and it is purely a toxemia, develop rapidly. They are the symptoms of severe surgical shock—rapid pulse, cold, clammy sweat, extreme restlessness plus high temperature. If not treated promptly, the gangrene extends

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.

rapidly and death comes quickly. In addition to the signs described above Davis<sup>8</sup> shows the value of the X-ray in early diagnosis of gas gangrene. He finds this of especial help where the foreign body which has carried in the infection remains buried deep in the tissues. He finds that there is a halolike shadow either around the foreign body or along its track or in the fascial planes. Such X-ray findings should warn one that gas gangrene infection is present.

The development of this disease can be prevented by prompt and proper treatment, which consists of the free use of iodine in and around the wound and careful removal by dissection of all contaminated and dead tissue—what the French call debridement. If the wound is not seen within the first six or eight hours, it is better to leave it open anyway. Smears and cultures should be made, and if the wound is open, should be repeated frequently. In the open wound there should be placed Dakin tubes and the Carell-Dakin technique carried out scrupulously.

We hear considerable criticism of Dakin fluid, and when I hear it, I think that the critic has been using something called Dakin, which is not. Dakin solution, properly made, when titrated should contain between .45 and .5 chlorine. This, when properly used, I know cleanses a wound and keeps it clean. Wounds which have been kept open can be closed as soon as one knows they are free of infection. Such care as has been outlined is the best way to prevent gas gangrene. After it has developed, as sometimes happens, it is limited to a certain muscle or group of muscles and massive gangrene has not occurred, the limb may be saved by dissecting out completely the affected tissues. One can easily tell by the quick retraction of the muscle fiber when healthy muscle is reached. When such treatment is employed, the Carell-Dakin technique should immediately be utilized and cultures made frequently and appropriate sera administered. If massive gangrene has occurred, immediate amputation is indicated. This should be done by the guillotine method. I have found that in doing a guillotine amputation it is possible to leave a cuff of skin which is folded back and can

be used to cover over the end of the stump, when the wound is free of infection. Immediately the amputation is completed the Carell-Dakin treatment should be begun and the proper sera used. A little later more will be said about the sera. I am happy to say that by carrying out such measures as have been outlined I have not had since the war a case of gas gangrene develop in a single case of my own. I am also proud of the fact that I have had no mortality in the cases which have been referred to me. The mortality is, however, high. At home, at the Methodist Hospital, the mortality is thirty-three and one-third per cent, at the John Gaston thirty-six and seven-tenths per cent, at St. Joseph's twenty-five per cent, and at the Baptist thirty-eight per cent. Reports from many other locations show there is a mortality of from thirty to fifty per cent. Following the Tupelo disaster last winter, six cases occurred among the victims brought to the John Gaston Hospital, with three deaths.

Now let us consider the use of anti-gas gangrene sera, both as used as prophylaxis and curatively. I had the pleasant experience of working at the Rockefeller Institute during the war when Bull was developing his antitoxin against the Welch Bacillus. He proved very positively that gas gangrene is a toxemia. Then one may ask why it should not be treated successfully by a proper antitoxin. Occasionally we have a report that this has been done. Dearing,<sup>3</sup> of the navy, reports a case of severe gas bacillus infection in a compound fracture of the ankle cured by injecting into the vein six doses, each of 20,000 units of serum. Joseph<sup>4</sup> reports two cases of fracture of the pelvis with gas bacillus infection (Welch Bacillus) cured by the use of serum. In such cases as the last, where amputation cannot be done, one must rely on the curative effects of the serum, but when massive gangrene has developed in a limb, of course amputation must be done.

I am firmly convinced that the administration of the serum in therapeutic doses is of definite help. During the war, while with the French army, I was fortunate in having the opportunity to work in DuVall's Hospital, where Vaucher did such remark-



able work with gas gangrene. The French were convinced that a polyvalent serum, potent against the three anaerobes mentioned above as pathogenic for gas gangrene, could not be produced, and so they had three sera, one specific for *Perfringens*, one for *Vibrio Septique*, and one for *Bacillus Oedematiens*. Immediately upon admission to the hospital of a convoy of wounded, Vaucher would make smears and cultures from every wound, and where contamination by a gas bacillus was found, the appropriate serum would be administered. By following out this plan in the later phases of the war, the mortality was reduced to three and five-tenths per cent, by far the lowest during the war or since. Keen states that in this hospital polyvalent sera was used, but this is a mistake. The procedure was as related above.

Those who manufacture bacteriological products in this country are marketing polyvalent sera, supposed to be potent against all of the gas bacilli as well as against tetanus. It seems to me that it would be better if we would follow the example of DuVall and Vaucher and have appropriate sera to be given in accordance with the type of bacilli found in each case. My own practice has been to rely on the serum potent against *Bacillus Welchii*, since that is the only infecting agent in cases with which I have had to deal. If a case should occur where the *Vibrio Septique* or the *Bacillus Oedematiens* was found, we would at present have to depend on a mixed polyvalent serum.

Now as to the value of the prophylactic serum. For a number of years manufacturers have supplied a serum containing 1,500 units of antitetanic serum and 1,000 units each of Welch *Bacillus* and *Vibrio Septique* sera. So many cases of gas gangrene developed after this so-called prophylactic dose was given that the number of units of the Welchii and *Vibrio Septique* was doubled. A great many men doing industrial surgery have used this combined prophylactic serum. I would not say that it never prevented gas gangrene, but too many cases have occurred following its administration to permit me to consider it in any way efficacious. A number of a group

of orthopedists at home tells me that they have had five cases developed after its use. At the John Gaston Hospital there were seven cases. Tilford<sup>5</sup> reports two cases developing after its administration, and in one of these there was a recurrence three times in spite of prophylactic doses.

I have seen in consultation two cases, in one of which the ordinary dose was given and gangrene developed in twenty-four hours. In the other, not the ordinary dose, but one of 10,000 units of a bivalent serum (against *Bacillus Oedematiens* and *Vibrio Septique*) was given. Twenty-four hours later there was a massive gangrene. *Bacilli Welchii* was found, and after amputation therapeutic doses of 10,000 units of straight anti-Welchii given, and the patient recovered. With this evidence before us one cannot be blamed for having little faith in the product which has been furnished. If we want to use a prophylactic serum, it would be better to follow the example set by DuVall and Vaucher until some better method has proved its usefulness.

Sometimes the condition of the patient is such that prompt debridement cannot be done. Frequently it may be necessary to treat the patient for shock before any operative procedure may be done. Or it may be impossible to get the patient into the hospital promptly. In such cases, in my opinion the proper course to pursue would be to give the straight antitetanic serum, and at the same time give 5,000 to 10,000 units of Welchii *Bacillus* antitoxin. Then as soon as possible proceed with the surgical treatment.

What has been said here applies chiefly to gangrene of the extremities.

A good many cases have been reported of gangrene of the abdominal wall, following operations on the intestines or gall bladder, or the removal of gangrenous appendices. Hugh Gamble<sup>6</sup> made a very interesting report of twelve such cases at the 1935 meeting of the Southern Surgical Association. He suggested that the proper method of preventing such complication is to leave the abdomen open.

In recent years attention has been called to still another location for the invasion of gas bacilli, namely in the uterus. Numer-

ous reports are found in the literature. Infection usually occurs at parturition, but may happen following abortions. From the maternity department at the John Gaston Hospital I find recorded nine such cases occurring since 1931. There were five deaths, only one receiving the perfringens serum; of the four recovered all four were given the therapeutic doses. In seven of the cases perfringens was found in smears or culture.

In the *Journal of the A. M. A.* (October 3, 1936) an article by Drs. Kelly<sup>7</sup> and Dowell of Omaha called attention to some cases of their own and other reports which they have collected from other sources in which most remarkable results have been obtained by treatment of gas gangrene with X-ray. While their cases are not described in great detail, one would judge that this method of treatment is just as efficacious in gangrene of the abdominal wall as where the extremities are involved. They recommend the use of the serum. They advise against amputation. It might be well enough to say not amputate before massive gangrene has developed, but of course it will always be necessary to amputate after this has occurred. In their total of fifty-six cases reviewed there was a mortality of only eight and nine-tenths per cent. This method is not intended to take the place of proper surgery, but one should undoubtedly make use of this new form of treatment, particularly when the cases are seen early.

#### CONCLUSIONS

1. Gas gangrene can be prevented by prompt removal of all contaminated material and tissue from the wound.

2. X-ray should be used, particularly in cases seen early.

3. Gas bacillus antitoxins are of great value, but only as aids to proper surgery.

4. The prophylactic serum supplied by manufacturers has not proven its efficiency. A larger dose of a *Bacillus Welchii* antitoxin is to be preferred.

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#### DISCUSSION

DR. MURRAY B. DAVIS (Nashville): Mr. President, Gentlemen of the Tennessee State Medical Association:

This is one of the most profound and instructive papers that I have ever heard presented before this body. Dr. Malone has been able, due to his close survey of the literature, coupled with his extensive personal experiences, to give us a paper which is interesting and instructive to listen to and which on close study is found to contain many facts of real importance.

I have just passed through a mild epidemic of gas gangrene, if such a thing is possible. During our service at the Nashville General Hospital we had six cases of this infection to occur during the first three months of 1937, four of these cases occurring in two days' time. As a result of this, we, the surgical service, the other branches of the hospital staff, and the hospital commission were deeply concerned. A Gas Gangrene Committee was appointed to investigate this condition, and many interesting facts were rediscovered and pointed out, some of which I will use in this discussion.

Dr. Malone said that "we must conclude that the possibility of its occurrence is always present," and this statement is borne out by the findings of our committee, for gas-gangrene bacilli (that formed acid and gas in plain agar and also produced in litmus milk the typical stormy fermentations) were found on the floors of the hospital and on the stretcher pads and also positive cultures were obtained from the skins of some of our dirtier patients before they were prepared for operation.

His statement that "cases are being reported with increasing frequency" is also substantiated by the findings of our Gas Gangrene Committee, which is as follows: There was one case in 1928, one in 1929, three in 1930, three in 1931, two in 1932, one in 1933, four in 1934, one in 1935, five in 1936, and six occurring during the first three months of 1937. During the last four months of 1936 and the first three months of 1937 there were ten cases, or ten cases occurred in seven months' time.

The types of cases in which this infection occurred in our series were: seven resulted as a complication of compound fractures, seven resulted as a complication of gunshot wounds, and of this number three cases were gunshot wounds of the abdomen. Three cases followed diabetic gangrene.



One case followed amputation of arteriosclerotic gangrene. Three cases followed rather insignificant lacerated wounds of extremities. One case occurred in abdominal incision following an operation for appendical abscess. One case occurred in the abdominal wall on the second day following a clean laparotomy. One case presented itself in the incision the day following a thyroidectomy and three cases occurred following a hypodermic injection.

On looking over the records of all the hospitals in Nashville I found that St. Thomas Hospital has had five cases with two deaths; Vanderbilt Hospital has had ten cases with six deaths; the General Hospital has had twenty-seven cases with eighteen deaths; Protestant Hospital has had one case with one death.

We have then in Nashville since 1928 forty-three cases of gas gangrene with twenty-seven deaths, or a mortality of sixty-two per cent. This figure does not compare favorably with other reported mortalities. However, in defense of Nashville let me say that not all of these cases died from gas gangrene alone. The records show that many of them died from pneumonia, postoperative hemorrhage, shock and other sequelae.

The essayist brought up the subject of the use of the X-ray in the treatment of this infection. In the last four of our cases X-ray was used along with surgery and serum treatment, and although we saved only two out of the four, one of these that died was a diabetic and the other was seventy years of age.

Graham says "that work on the reaction of living tissue leads to the conclusion that following radiation hydrogen peroxide is formed in the tissues irradiated." If this is true and since it is known that the organisms are anaerobic, this formation of peroxide may be the answer to the problem. I believe that X-ray has a distinct place in the treatment of this disease.

There is one point that I would like to emphasize, and that is, when operating on proven gas cases or cases that are potentially infected, such as diabetic gangrene, one should always have the surgical instruments that one uses autoclaved after operation, for our laboratory tells us that the gas spores will stand two and one-half hours boiling water, and that the only way that they can be eradicated is either by fractional sterilization or by autoclaving. It was thought by some that this was a possible explanation for our four cases coming in two days. Again—in potentially infected cases, such as diabetic or arteriosclerotic gangrene, always give a prophylactic dose of serum before operation.

I want to take issue with Dr. Malone when he advises the use of the Welchii antitoxin alone, and tetanus antitoxin, and then advocates cultures to determine the type of organisms causing the infection. It is true that the Welchii Bacilli was the chief offender in most of the cases in Nashville;

but since we know now that there are five anaerobic bacteria that are credited with causing gas gangrene, since many of our smaller hospitals do not have the facilities for making cultures, since it takes, *according to our laboratory*, forty-eight hours to make cultures and determine the type of infection, and since we have had one patient to die in less than twenty-four hours from gas gangrene—it seems logical to me that we should rely on the polyvalent vaccine in the beginning, *shot gunlike*, though it is.

DR. EDWARD T. NEWELL (Chattanooga): I wish to ask a question rather than to discuss the paper. I have been using the polyvalent gas vaccine along with the tetanus and have had no trouble. I have had no gas cases developed, as Dr. Malone has had, and as they report in Nashville. I would like to know from the other members present who have made it routine to give the combined vaccine gas and tetanus, if they have had the same experience that Dr. Malone has spoken of today.

This is the second time that I have had the privilege of hearing Dr. Malone this year on this subject. We should be very appreciative of his bringing the subject before the association at that time; and also Dr. Malone has brought to our attention the production of peroxide of hydrogen by irradiation with X-rays. This should be quite an addition to the treatment. I trust he will give us further information on this subject next year.

DR. BATTLE MALONE (closing): I am not advising anybody not to use the prophylactic serum. I am simply warning them that it is not to be relied on. I have given your fourteen cases that have been brought to my attention where this was used and the gas gangrene developed just the same, so I do not think that we have any right to depend on the product which is being put out now.

DR. W. A. BRYAN (Nashville): Do you know the mortality of the fourteen in which the prophylactic dose had been used?

DR. MALONE: No, I do not have the mortality—just that they occurred after the ordinary prophylactic dose was given.

My feeling is, if we are going to use a prophylactic serum we know, and we have had proof from all over the country, that the Welch Bacillus is the only one which produces gas gangrene here with us, and we should use a larger dose of the straight Welch Bacillus serum. Give, of course, your tetanus antitoxin.

I might add that a good many general hospitals over the country have made it a rule to give tetanus antitoxin in all cases where there is a possibility of contamination, and the gas gangrene prophylactic serum shall be given at the same time. I am not advising anybody not to do it, but with the evidence that we have I simply want to say that it is not to be relied on. I think that answers your question, Dr. Newell.



## ENDOCRINE DISTURBANCES AFFECTING MENSTRUATION\*

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THE FACT THAT such a vast number of women daily consult the physician because of menstrual disorders is an ever-present reminder both of the importance of these conditions and of the difficulties of their treatment. It is with the latter that we are especially concerned.

The menstrual process has always intrigued the mind of man. Many ingenious and interesting speculations have been and still are being presented concerning the physiological factors underlying it. Most of our present knowledge has been obtained through a study of the uterine endometrium. These studies have given us the facts which are the basis for a rational clinical approach to disorders of ovarian function.

The first step of importance was the realization that an ovarian disturbance is the cause of all the so-called functional uterine bleeding. This realization immediately placed patients with menstrual disorders in the endocrine group. Up to this time there had been a great deal of confusion: the gynecologists spoke of hyperplasia of the endometrium; the endocrinologists spoke of thyroid menorrhagia and pituitary amenorrhea; each failed to realize that they were both observing different manifestations of the same disease.

The next step of importance was the study of the endometrium in relation to ovarian disturbances. These experiments revealed that the endometrium passes through three stages. In the first stage there is a partial failure of the ovary, manifested by slightly diminished secretions and a more or less normal endometrium; in the second stage there is complete absence of the corpus luteum and a disturbance of oestrin secretion resulting in hyperplasia of the endometrium; and in the third stage there is a complete failure of the corpus luteum and a greatly diminished oestrin

secretion. While no absolute correlation is possible between the type of symptom and the state of the endometrium, there is a general tendency for the milder disturbances to fall into the first group, the severe uterine bleeding into the second group, and the amenorrheas into the third.

Finally, experimentation proved that the ovarian failure might be primary or might result secondarily from disease in other endocrine glands (such as thyroid or pituitary), or from some constitutional condition which had depressed one or more components of the endocrine system.

In a general way, then, one may say that the disorders of the menstrual interval and flow are the result of an ovarian failure, which may be primary or secondary to other endocrine or constitutional diseases, and that the state of the endometrium indicates the severity of the process.

In treating patients with menstrual disturbances, it must be remembered that the complaint is not a disease, but a *symptom common to many diseases*. The interpretation of this symptom is usually made possible by a careful history, general and pelvic examinations, and certain clinical tests. It must be realized also that the success of the treatment often depends largely upon the length of time the symptoms have been present. Sound treatment can be instituted according to the diagnosis and the individual characteristics peculiar to the case. In deciding upon the treatment, there should be considered the advantages to be derived from general constitutional supportive measures, gland products, radiation, and surgery. These will be discussed briefly.

General constitutional treatment directed toward any minor complaint is a prerequisite to a successful outcome. All foci of infection should be energetically eradicated. The body weight should be normalized, and any anemia corrected. An adequate diet, plenty of sleep, and rest are essential.

Gland products, in general, have two ac-

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.

tions: (1) a direct substitutive and (2) an indirect stimulative action. This is best illustrated by the action of an estrogen (such as Theelin, Progynon, and Emmenin) in ovarian deficiency. These products substitute and make up for a deficiency in the ovarian secretion; in addition, there is an indirect stimulative effect on the ovary by way of the hypophysis. If this dual action is kept in mind, and if one is at all familiar with the high spots of endocrine interrelationships, no difficulty is encountered in establishing rational therapy.

The aim of the treatment in any glandular dyscrasia (whether pituitary, thyroid, or ovary) is to correct the entire disturbance. In pituitary disease, there is a direct lack of pituitary secretions; there is often, in addition, a secondary failure of thyroid and ovarian secretions as well. Pituitary preparations (either in the form of dried powder or the newer preparations which can be injected) are used. These preparations are not always efficacious in stimulating the ovary and thyroid, and small doses of thyroid and an estrogen or an ovarian stimulator, such as the anterior pituitary-like hormone, may be necessary.

In primary thyroid deficiency, endocrine therapy is at its best. Here the thyroid extract satisfactorily supplies the deficiency, and the results are usually gratifying. By the use of thyroid extract, beginning with small doses and gradually increasing, the metabolism may be normalized. The physician and patient may make the mistake of thinking that an adjusted metabolism and disappearance of symptoms mean an absolute cure. They may discontinue the therapy, and this is most often followed by a gradual recurrence of the symptoms. Hence in many cases thyroid therapy must be continued indefinitely.

In primary ovarian disease associated with menopausal symptoms, substitution therapy is likewise gratifying. Any of the well known estrogens, given in dosages of 600 to 800 rat units daily, will produce satisfactory results, although abrupt cessation of therapy is followed by a recurrence

of symptoms. Treatment should be stopped gradually.

In primary ovarian disease characterized by profuse uterine bleeding, any one of the well-known anterior pituitary-like hormones is indicated. One hundred to 300 units each day are given until the bleeding checks, and then biweekly injections of 200 units are given. Daily injections are begun again at the first sign of bleeding. Treatment is continued until the patient has had three normal periods. Where patients can be seen only infrequently, single massive doses of 500 to 1,000 units are often efficacious in checking the bleeding.

X-ray has proven a most useful measure in the treatment of menstrual disorders. Many clinicians believe that rather small doses of X-ray are stimulating, and marked improvement has been seen following these so-called stimulating dosages. So far no ill effects have been seen. At or near the menopause the depressing action of X-ray and radium is the method par excellence to control bleeding; it produces an artificial menopause by depressing the function of the ovary. The bleeding ceases, and the patient is relieved of these most aggravating symptoms. However, the original cause of the disease still remains and requires further treatment.

Surgery also has much to offer. The simple operation of curettage will usually stop the bleeding long enough for specific measures to take hold. It is our most reliable styptic and as a temporary stopgap is excellent. It rarely produces a permanent cure, as the underlying pathology still remains. The operation of hysterectomy must occasionally be resorted to in cases of endocrine bleeding. Here again, as following curettage, the results are only symptomatic and should always be supplemented by treatment of a specific nature. This method (i.e., hysterectomy supplemented by specific treatment) is particularly valuable in young women, in the rare cases where other methods have failed, and where ovarian preservation is essential.

## PUBLIC HEALTH ACTIVITIES IN TENNESSEE

THE Public Health Council met in special session in Nashville on September 10 with all members present. Among other things considered were the plan for distribution of arsenicals and other materials for the treatment of cases of syphilis, and the payment of fees for orthopedic surgeons in connection with the field program of the Crippled Children's Service, administration of which was placed under the Department of Public Health by the Reorganization Act of 1937. The council approved the following:

(1) Distribution of materials to all physicians, without cost, for the treatment of prenatal and congenital syphilitics. A portion of available funds is to be set aside for this specific purpose. Additional funds are to be set aside for matching local funds on a dollar-for-dollar basis in providing materials, without cost to physicians, for the indigent, semi-indigent, and other groups if physicians request same. The available supplies cannot be used to replace existing facilities or appropriations for the treatment of the various groups, but are to be used to encourage the more adequate treatment of all cases, new and old. Details regarding the procedure to be followed are being worked out in cooperation with the Liaison Committee of the state association.

(2) Adherence to the policies approved by the House of Delegates of the State Medical Association regarding the payment of fees in connection with the crippled children's program. Federal regulations under which funds are available for the care of crippled children provide only for the payment of fees for the treatment of conditions contributing directly to the crippled condition. The council approved the policy of paying a reasonable fee or stipend for all types of medical and surgical service to crippled children—the details and schedules to be worked out by the commissioner of public health with the groups and agencies concerned. A hospital per diem, surgical supplies, corrective appliances, and other materials will be provided upon re-

quest of the surgeon in charge. Under federal regulations, the term, "orthopedic surgeon," is defined and is, perhaps with few exceptions, limited to the group listed in the *American Medical Association Directory* as orthopedic surgeons. The new program is expected to get under way on or about October 1.

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THIS IS THE SEASON FOR DIPHTHERIA CASES  
AND DEATHS

There were 163 deaths reported from diphtheria in 1936. Perhaps everybody is partly responsible for this, but these children are martyrs nevertheless to somebody's carelessness or ignorance. Tennessee still ranks in the upper twenty per cent of states having the highest death rate from diphtheria. We should be in the lower twenty per cent. Cannot we doctors emphasize diphtheria immunization a little more? There is nothing unethical about an inquiry as to a child's immunity status—no more than to inquire why the same child was going around with a flap over his eye or was limping.

What would happen in five years if every doctor who delivers a baby saw that the infant was protected against diphtheria when it reached six months of age? Have you ever tried a "family service" of inquiring about the diphtheria immunity status of every child under school age when you are visiting in a home? Then on the next visit taking along enough alum-precipitated toxoid to give each child an immunizing dose? The one-dose alum-precipitated toxoid makes it relatively simple to follow this simple little procedure. The toxoid can be procured *without cost* from your local full-time county health department, if there is one in your county, or directly from the State Health Department at Nashville if you do not have a full-time unit in your county. All you have to do is let them know how much Schick material and toxoid you want. It is yours for the asking.

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The malaria-control unit of the State



Health Department is now actively engaged in a blood and spleen index survey of all school children residing within mosquito-flight range of the proposed Chickamauga reservoir in Hamilton and surrounding counties, the backwaters from the Gunter'sville dam, the Pickwick reservoir area in Hardin County, and all counties contiguous to the Mississippi River. The survey findings will be used as basic information upon which to plan tentatively for future control activities. The field program is directed by Dr. W. K. Stratman-Thomas, who has had extensive experience in malaria control with the Rockefeller Foundation, which agreed to his release, effective September 1, for employment in Tennessee. The malaria-control unit is financed jointly by the State Health Department and the Tennessee Valley Authority.

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The United States Public Health Service is interested in studying Vincent's infec-

tion, both stomatitis and angina, and would like to study several outbreaks. If an epidemic comes to your attention, will you please telegraph immediately Dr. R. E. Dyer, Chief, Division of Infectious Diseases, United States Public Health Service, Washington, D. C.?

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On October 1, 1937, there were forty-six counties in Tennessee with full-time county or district health service. Approximately sixty per cent of the total rural population resides in these counties. It is expected that other counties will be added from time to time and about as rapidly as qualified personnel can be found and trained. Expansion has been definitely limited by the lack of well-qualified physicians for training as full-time health officers. The work offers considerable inducement for the young physician who wants to take up public health as a career.

# THE JOURNAL

OF THE

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H. H. SHOULDERS, M.D., Editor and Secretary

OCTOBER, 1937

## EDITORIAL

### IN THE NAME OF PUBLIC WELFARE

It is beginning to appear that any proposal made by anyone in the name of *public welfare* is adopted by legislative bodies.

The legislator who must cast a vote for or against such a proposition is constrained to believe that if he should vote against it he would be voting against the general welfare, and thus destroying his political future.

An example of this type of legislation is a law enacted by the Tennessee legislature of 1937 providing for the examination of all food handlers.

The legislators who voted for it are excusable, to a degree, on the ground that it was presented in the name of welfare, and in addition, it possesses a certain degree of theoretical plausibility.

A little bit of inquiry would have revealed facts about this legislation which certainly should have accomplished its defeat. Some of these facts are as follows: first, several states, notably New York State, after trying such legislation, have abandoned it. Experience taught them that it is next to futile and very expensive.

It is futile for the following reasons: a food handler who is perfect today may be very imperfect tomorrow. He may be perfect and fail to wash his hands properly when handling food and then do just as much harm as if he failed to stand the examination. One physical examination per year is therefore futile.

It is expensive for the reason that an enormous amount of work must be done to discover certain conditions in food handlers regarded as hazardous to the public. For example, many examinations of the feces must be made for one to be able to say positively that any food handler is or is not a typhoid carrier. Literally thousands of examinations are necessary to detect one carrier, and relatively few exist.

As is usual, the state pays the cost of an enormous setup of personnel to carry forward the executive and clerical work connected with the enforcement of the statute.

The doctors of Tennessee doubtless have all received a letter and a record card from Mr. Bolton on which to make a record of the examinations made of food handlers. The items called for on the card compose a very exhaustive study.

Those in charge of the enforcement of the law were sufficiently bold to request through the press of the state, some days ago, that doctors cooperate in the enforcement of this statute to the extent of making these examinations free of charge. A proper reply to such a suggestion would be that we doctors are willing to give just as much as those people who are paid salaries to enforce the law are willing to give to the cause.

Certainly doctors cannot afford to cheapen themselves by signing a card without making an examination that is thorough, and in the second place no doctor can afford to make such an examination gratis while political officeholders pull down handsome salaries for the little contribution they make.

The time has arrived when every proposal made, in the name of welfare, must be scrutinized with great care by the public and by the profession of medicine. We must not forget that the enormous number of people today on the pay rolls of government charged with the duty of enforcing various sorts of welfare measures would lose their jobs, maybe, if they did not from time to time propose and secure the enactment of new welfare legislation. Much of such legislation is sponsored by the very people (welfare workers) who will directly

benefit from its enactment. Certainly it is possible to dissipate the substance of the people in carrying out poorly planned and unjustified welfare schemes.

Some years ago a proposal was made that veterans' hospitals in the United States accept patients with nonservice connected disabilities so long as beds were available. It will be remembered that these hospitals were created and staffed to care for *service connected disabilities*. As beds were being vacated by discharge or death of service connected cases, it became apparent to the personnel of these institutions that their jobs might be lost if they did not keep the beds occupied. Therefore, the above suggested *welfare legislation* for veterans was proposed by the workers in the institutions and enacted by the congress. Veterans' organizations never demanded it.

Again it must be repeated, welfare legislation that is proposed by welfare workers at the present time must be scrutinized with greater care than was ever the case before, for the simple reason that there are so many more people today who are drawing a livelihood from the administration of welfare legislation of one sort or another.

#### PUBLIC HEALTH ACTIVITIES IN TENNESSEE

On another page of this issue will be found a new section of the JOURNAL entitled "Public Health Activities in Tennessee." It might with propriety be designated the "Public Health Page."

This step is taken by the JOURNAL in order to further accomplish a more complete accord between the private practitioners of medicine and the Department of Public Health.

The Public Health Council is composed of the following: Dr. John M. Lee, chairman, Nashville; Dr. Oren A. Oliver, vice-chairman, Nashville; Dr. J. R. Thompson, Jr., secretary, Jackson; Dr. L. F. Mitchell, Nashville; Dr. C. P. Fox, Greeneville; Dr. W. K. Vance, Jr., Bristol; Mrs. Ferdinand Powell, Johnson City; Dr. E. M. Fuqua, Pulaski; and Dr. W. B. Key, Memphis.

This council has assumed the responsibilities that were delegated to it by the law

creating the council two years ago. It is receiving the wholehearted cooperation of the executives of the various departments.

It is believed that the membership will find on this page information that is authoritative and of general interest.

It has often been said, and truthfully so, that the objectives of the Public Health Department and the practitioners of medicine are the same. This is largely true. It is often the case that they have different methods of approach, however, and this is essentially true.

The public health official is armed with scientific knowledge and, in addition, he is clothed with powers which the private practitioners cannot exercise.

This power is very necessary at times. It must be exercised, of course, with prudence.

It is a fine thing, in our opinion, for the people of Tennessee that suitable organizations have been created under which private practitioners and public health authorities may go forward and perform their respective functions even within a home without stepping on each other's toes. This condition of affairs is for the good of all, especially the public.

## DEATHS

Dr. B. S. Penn, Humboldt; Vanderbilt University Medical School, 1892; aged 65; died September 27.

## RESOLUTIONS

In the death of Dr. Harry Lee Alexander of McKenzie on September 7, 1937, West Tennessee has lost one of its most active and esteemed physicians and citizens. The Carroll County Medical Society and the Tri-County Medical Society, composed of Carroll, Henry, Weakley, and Benton Counties, have lost one of their most valued members.

Dr. Alexander was born June 14, 1876, in Weakley County. After his graduation



from McTyeire Institute he attended the University of Tennessee Medical School, then located at Nashville, for two years. He transferred to the University of the South at Sewanee and graduated from that medical school in December, 1901. After practicing for one year in Henry, Tennessee, he came to McKenzie. In 1910 he took a post-graduate medical course at Vanderbilt University. During the World War Dr. Alexander served as captain in the medical corps of the United States Army. This physician has held offices at various times in the Carroll County, Tri-County, and West Tennessee Medical Associations. For the past two years Dr. Wray Alexander, his son, has been associated with him in practice.

Dr. Harry Alexander was one of the best loved physicians ever to have practiced in this part of the state. This statement was given ample proof by the large number of patients and friends who attended his funeral in grief. He was a man who dedicated his entire life to his profession, his family, and his church. Years of honesty and a deep sense of tolerance developed in him a character and a reputation which were above reproach.

Be It Therefore Resolved, That the Tri-County Medical Society sincerely regrets the death of Dr. Alexander.

And Be It Further Resolved, That we extend to his family our deepest sympathy.

And Be It Further Resolved, That a copy of this statement and resolutions be sent to the family, a copy placed in the minutes of our record book, and a copy sent the secretary of the state medical society.

*Memorial Committee*

GEO. D. BOONE, M.D., *Chairman.*

BARTON MCSWAIN, M.D.

W. G. RHEA, M.D.

## NEWS NOTES AND COMMENTS

The Middle Tennessee Medical Association will hold its fall meeting in Dickson on November 18th and 19th.

## WOMAN'S AUXILIARY

President-----Mrs. W. T. Black  
Memphis  
President-elect-----Mrs. H. E. Christenberry  
Knoxville  
Press and Publicity-----Mrs. B. F. Byrd  
Nashville

The nip of fall is in the air! The haze beginning to appear on distant hills, the pleasant coolness of the early morning and tang of the night breezes are gentle reminders that autumn is here. As you read this, you will be busy with the closing up of vacation details, getting settled in your homes, children back in school after vacation wanderings, and most of us view with some misgiving our full schedule for the coming winter months. But, let us, as we enter another year of auxiliary work, renew our ambitions to make every meeting count in attaining our goal of every member "secure a new member." Few general subjects make a stronger appeal than growth, and the first step in growth is the will to grow. Giving a worthy goal, the romance of life, consists of attaining it. We hail with delight another year of auxiliary work.

### *Dear Auxiliary Members:*

Since the beginning of our auxiliary the goal has been to have an organization of wives in each medical society. Each president and organization chairman has made that her major objective, and I shall still pursue the elusive phantom. At present we have only eight in the entire state as against fifty-nine medical societies.

Our larger auxiliaries have passed the throes of birth and are well on their way to sturdy permanence. Our younger auxiliaries need a more definite program laid out for them. Their interests are as scattered as their members, and a strong purpose needs to be presented to them. This lies within the scope of the program committee.

For new organizations, I suggest that each be fostered by an older one. This serves a double purpose: an incentive for

the new, an interest for the older one. With the impetus that public health has gained in the past year or so in regard to certain prevalent diseases, no auxiliary need look in vain for a worth-while objective. If success is to be attained in stamping out, or even reducing, the mortality rate of these dread diseases, it will be necessary to have the support of all interested persons. Women, as the health keepers of the family, should be most concerned.

Organization increases the weight of one's influence always more than numerical membership, or the combined total of individual influence. There is something about a common project that makes it gather strength as it goes along. It is something from above that responds to the call to be a brother's keeper. In banding together to help others, we add to our own strength. When God finished his week's work of creating the universe, he looked upon the work and saw that it was good. Someone has said that since that time the greatest joy to the heart of man has been to look upon a work of his own, and know that it is good.

Let us go into the work of this—another—year with the intention of making it our very best.

MRS. H. E. CHRISTENBERRY,  
*Chairman of Organization.*

## MEDICAL SOCIETIES

### *Davidson County:*

September 14—"Klippel-Feil Deformity with Unusual Clinical Manifestations," by Dr. Edward L. Turner. Discussed by Dr. H. S. Shoulders.

"Case Report: Ununited Fracture," by Dr. R. W. Billington. To discuss: Dr. George Carpenter.

September 21—"Sterile Matings, Investigation and Treatment," by Dr. C. S. McMurray. Discussed by Dr. John C. Burch.

"Case Report: Chronic Subdural Hematoma," by Dr. Cobb Pilcher. Discussed by Dr. T. D. McKinney.

September 28—"Plastic Surgery of the Nose, with Report of a New Cartilage

Transplant Operation," by Dr. Beverly Douglas. Discussed by Dr. W. A. Bryan and Dr. Oren A. Oliver.

"Case Report: Carcinoma of the Male Breast," by Dr. Carl Crutchfield. Discussed by Dr. Murray B. Davis.

October 5—"Lymphogranuloma Inguinale," by Dr. R. H. Kampmeier. Discussed by Dr. G. S. McClellan.

"Case Report: Pernicious Anemia with Optic Atrophy," by Dr. Edgar Jones. Discussed by Dr. Carroll Smith.

### *Dyer, Lake, and Crockett Counties:*

The Dyer, Lake, and Crockett Counties Medical Society met in regular monthly session Wednesday, October 6.

The postgraduate course in obstetrics, proposed and sponsored by the Tennessee State Medical Association, was discussed in detail. Twenty-three physicians of the society accepting the course of ten weekly lectures beginning the first Tuesday in November. The American Legion Home was selected as a meeting place, 7:30 P.M. the time and Dr. J. Paul Baird was elected as secretary of the course.

#### Scientific Program:

"Foreign Bodies in the Bladder"—Dr. I. G. Duncan, Memphis.

"Fractures of Lower Extremity"—Dr. E. H. Baird, Dyersburg.

"High Lights in the Management of Infantile Paralysis"—Dr. E. G. Campbell, Memphis.

Adjourned in usual manner. Twenty-six in attendance.

(Signed) C. L. DENTON, *Secretary.*

### *Fayette-Hardeman:*

Scientific program, regular meeting Fayette-Hardeman County Medical Society, September 24, 1937.

"Cancer of the Breast," by Dr. J. W. McClaran, Jackson, Tennessee.

"Hyperinsulinism," by Dr. W. G. Saunders, Jackson, Tennessee.

### *Giles County:*

Members of the Giles County Medical Society were guests at a fish fry given September 30 by Dr. J. G. Waldrop, president.

Drs. J. C. Pennington, T. D. McKinney, and Dewey Foster, of Nashville, were invited guests.

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*Hamilton County:*

September 16—"Appendicitis in Children," by Dr. B. L. Jacobs. "Infections of the Face," by Dr. Charles McVea.

September 23—"Nephrolithiasis," by Dr. H. H. Hampton. "Treatment of Internal Squint," by Dr. Stewart Lawwill. "Cystoscopic Diagnosis," by Dr. Joseph Killebrew.

September 30—"Elliot Treatment of Pelvic Inflammatory Diseases," by Dr. Wm. G. Stephenson. "Some Surgical Conditions," by Dr. Raymond Wallace.

October 7—Meeting of Chattanooga Clinical Congress.

October 14—"Cholecystectomy," by Dr. Hiram Laws. "Trachiobronchitis," by Dr. T. Lyles Davis.

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*Hardin, Lawrence, Lewis, Perry, and Wayne:*

The Five-County Medical Society met in Waynesboro on September 28. The following papers were read:

"Syphilis," by Dr. T. J. Stockard, Lawrenceburg.

"Common Errors in the Diagnosis and Treatment of Routine Pediatric Disorders," by Dr. Wm. K. Sullivan, Jackson.

"Water Balance of the Body," by Dr. W. E. Boyce, Flatwoods.

"Chronic Prostatitis," by Dr. John B. Nuckells, Jackson.

The next meeting will be held in Savannah on October 26.

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*Knox County:*

September 14—"Allergy," by Dr. Hal M. Davison, Atlanta.

September 21—"Differential Diagnosis of Acute Abdominal Pain," by Dr. L. E. Coolidge, Greeneville.

September 28—"Recent Research Work," by Dr. J. F. Biehn, Chicago.

October 5—There was no meeting on this date due to the East Tennessee meeting at Morristown.

*Sullivan-Johnson Counties:*

The Sullivan-Johnson County Medical Society met on September 8.

Papers read were "X-ray Therapy," by Dr. Walter D. Hankins, Johnson City, and "Relation of Degenerative Diseases to Industrial Efficiency," by Dr. W. K. Vance, Jr., Bristol.

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*Washington County:*

The Washington County Medical Society met October 7.

Dr. Lee K. Gibson's subject was "Pathological Conditions of the Thyroid Gland." Discussed by Drs. Brading and West.

Dr. J. G. Moss read a paper on "Radium Treatment of Skin Lesions." Discussed by Drs. Hankins and Miller.

## OTHER MEDICAL SOCIETIES

The East Tennessee Medical Association met in Morristown on October 5.

Dr. Virgil E. Simpson of Louisville, Kentucky, was a guest speaker after the dinner session.

Others appearing on the program were Drs. N. E. Hartsook, N. H. Crews, C. P. Fox, of Greeneville; Grover M. Rogers, La Follette; A. J. Willis, Jonesboro; O. F. Agee, Elizabethton; W. E. Howell, Morristown; E. T. West, Johnson City; Thomas B. Yancy, Kingsport; Wm. E. McGaha, Newport; W. J. Adams, Kingsport; and N. H. Copenhaver, Bristol.

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The fourth annual meeting of the Southeastern Branch Society of the American Urological Association is to be held November 5 and 6 in Birmingham, Alabama, with headquarters at the Tutwiler Hotel.

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The Seventh Cruise Congress of the Pan-American Medical Association will begin January 15, 1938. The "Queen of Bermuda" has been chartered for this fifteen-day cruise from New York to Havana and the West Indies. A number of outstanding surgeons are on the program, and the trip promises to be the best ever.



## LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. Geo. C. Williamson, Columbia.  
 Vice-President for West Tennessee—Dr. F. K. West, Rossville.  
 Vice-President for Middle Tennessee—Dr. Jack Witherspoon, Nashville.  
 Vice-President for East Tennessee—Dr. Andrew Smith, Knoxville.  
 Secretary—Editor—Dr. H. H. Shoulders.  
 Assistant Secretary—Editor—Dr. W. M. Hardy.

## TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville.  
 Dr. A. F. Cooper, Goodwyn Institute Building, Memphis.  
 Dr. E. R. Zemp, Walnut Street, Knoxville.  
 Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.  
 Dr. W. L. Williamson, 915 Madison Ave., Memphis.

## COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.  
 Second District—Dr. S. R. Miller, Knoxville.

Third District—Dr. Hiram A. Laws, Jr., Chattanooga.  
 Fourth District—Dr. J. T. Moore, Algood.  
 Fifth District—Dr. John W. Sutton, Petersburg.  
 Sixth District—Dr. H. S. Shoulders, Nashville.  
 Seventh District—Dr. C. D. Walton, Mt. Pleasant.  
 Eighth District—Dr. J. R. Thompson, Jackson.  
 Ninth District—Dr. E. H. Baird, Dyersburg.  
 Tenth District—Dr. W. B. Burns, Memphis.  
 Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

Delegates to the American Medical Association—  
 Dr. E. G. Wood, Knoxville; East Tennessee.  
 Dr. H. H. Shoulders, Nashville; Middle Tennessee.  
 Dr. H. B. Everett, Memphis; West Tennessee.

## Alternates—

Dr. E. T. Newell, Chattanooga; East Tennessee.  
 Dr. J. O. Manier, Nashville; Middle Tennessee.  
 Dr. E. C. Ellett, Memphis; West Tennessee.

## OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	VICE PRESIDENT	SECRETARY-TREASURER
Anderson	H. D. Hicks, Clinton	J. Sam Taylor, Clinton	J. S. Hall, Clinton
Bedford	James W. Reed, Belfast	James N. Burch, Shelbyville	W. B. Barton, Briceville, Assoc. Sec.
Blount	H. A. Calloway, Maryville	G. D. Lequire, Maryville	W. C. Crowder, Maryville
Bradley	J. Lake McClary, Cleveland	W. C. Stansberry, Cleveland	C. H. Taylor, Cleveland
Campbell	G. B. Brown, Jellico	R. W. Lewis, Westbourne	R. J. Buckman, LaFollette
Carroll	E. W. Hillsman, Trezevant	A. R. Collins, Watauga Valley	J. H. Williams, McKenzie
Carter	O. F. Agee, Elizabethton		E. T. Pearson, Elizabethton
Chester, Henderson, and Decatur	H. T. Pitts, Henderson	W. C. Ruble, Newport	L. C. Smith, Henderson
Cooke	J. E. Hampton, Newport		Fred M. Valentine, Newport
Cumberland	E. W. Mitchell, Crossville	T. D. McKinney, Nashville	V. L. Lewis, Crossville
Davidson	Jack Witherspoon, Nashville	B. G. Marr, Dyersburg (Dyer)	J. P. Gilbert, Nashville
Dickson	L. F. Loggin, Charlotte	W. L. Sumner, Ridgely (Lake)	R. P. Beasley, Dickson
Dyer, Lake, Crockett	J. P. Baird, Dyersburg	J. O. McKinney, Friendship (Crockett)	C. L. Denton, Dyersburg
Fayette and Hardeman	L. D. Pope, Grand Junction	F. K. West, Rossville	Wiley D. Lewis, Bolivar
Fentress	C. A. Collins, Wilder	A. H. Crouch, Forbus	J. P. Sloan, Jamestown
Franklin	Alfred Parker Smith, Winchester	Geo. E. Bogart, Sherwood	John M. Hardy, Sewanee
Gibson	H. P. Clemmer, Milan	J. W. Allen, Rutherford	F. L. Roberts, Trenton
Giles	J. G. Waldrop, Lewisburg	A. W. Deane, Pulaski	T. F. Booth, Pulaski
Greene	W. T. Mathes, Greeneville	M. A. Blanton, Mosheim	J. E. Phillips, Greeneville
Grundy	U. B. Howden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	R. A. Purvis, Morristown	P. L. Henderson, Morristown
Hamilton	E. A. Gilbert, Chattanooga	A. M. Patterson, Chattanooga	J. Marsh Frere, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	Otis Whitlow, Savannah	J. V. Hughes, Savannah (Hardin)	O. H. Williams, Savannah
Haywood	F. P. Hess, Bells	V. H. Crowder, Lawrenceburg (Lawrence)	
Henry	A. F. Paschal, Puryear	Paul Wylie, Hohenwald (Lewis)	
Hickman	L. F. Pritchard, Only	J. W. Frost, Linden (Perry)	
Humphreys		J. T. Keeton, Clifton (Wayne)	
Jackson	J. D. Quarles, Whitleyville	John P. Shearon, Gates	Roy M. Lanier, Brownsville
Knox	Henry Clay Long, Knoxville	R. J. Perry, Springville	R. Graham Fish, Paris
Lauderdale	J. R. Lewis, Ripley	C. V. Stephenson, Centerville	W. K. Edwards, Centerville
Lincoln	R. E. McCown, Fayetteville		W. W. Slayden, Waverly
Loudon	Halbert Robinson, Lenoir City	C. E. Reeves, Gainesboro	
Macon	D. D. Howser, Lafayette	A. R. Garrison, Byington	Jesse C. Hill, Knoxville
Madison	J. C. Pierce, Mercer	J. H. Nunn, Ripley	Thos. E. Miller, Ripley
Maury	H. C. Busby, Columbia	R. T. Odum, Fayetteville	M. F. Brown, Fayetteville
McMinn	Boyd McClary, Etowah	J. A. Mourfield, Lenoir City	J. R. Watkins, Loudon
McNairy	John R. Smith, Selmer	P. East, Lafayette	J. Y. Freeman, Lafayette
Monroe	R. C. Kimbrough, Madisonville	John E. Powers, Jackson	S. M. Herron, Jackson
Montgomery	Paul E. Wilson, Clarksville	C. O. Fowler, Spring Hill	D. B. Andrews, Columbia
Obion	M. T. Tipton, Union City	R. S. Perry, Columbia, R. F. D.	
Overton			D. F. Seay, Englewood
Polk	A. W. Lewis, Copperhill		H. C. Sanders, Selmer
Putnam	W. A. Howard, Cookeville		David M. Cowgill, Madisonville
Roane	J. C. Fly, Kingston		I. E. Hunt, Clarksville
Robertson	E. W. Adair, Springfield		W. B. Harrison, Union City
Rutherford	T. J. Bratton, Woodbury		A. B. Qualls, Livingston
Scott	D. T. Chambers, Norma		F. O. Geisler, Isabella
Sevier			Thurman Shipley, Cookeville
Shelby	M. W. Searight, Memphis		W. W. Hill, Harriman
Smith	J. J. Hobson, Memphis, President-Elect		J. E. Wilkinson, Springfield
Sullivan, Johnson	W. B. Dalton, Gordonsville		J. A. Scott, Murfreesboro
	J. A. Delaney, Bristol		Milford Thompson, Oneida
			H. A. Saubert, Sevierville
			A. F. Cooper, Memphis, Secretary
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			C. H. Donoho, Portland
			J. J. Fleming, Atoka
			E. L. Mooneyham, Rock Island
			G. J. Budd, Johnson City
			T. W. Jones, Martin
			A. A. Bradley, Cookeville, Route 3
			W. F. Roth, Jr., Franklin
			R. N. Buchanan, Jr., Lebanon
			R. B. Gaston, Lebanon

## COMMITTEES

The following is a list of the standing committees of the Tennessee State Medical Association provided for in the constitution and by-laws and appointed by the proper authority, together with some special committees appointed under the authority of a resolution by the House of Delegates.

Some of the committees are appointed for a definite period. In such instances the appointment of the committeeman expires with the meeting of the House of Delegates in the year stated opposite his name.

### COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville.  
Dr. A. F. Cooper, Memphis.  
Dr. Frank Harris, Chattanooga.  
Dr. A. H. Lancaster, Knoxville.

### STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop.  
Dr. O. N. Bryan, Nashville.  
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### HOSPITAL COMMITTEE

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Dr. E. H. Baird, Dyersburg.  
Dr. E. A. Gilbert, Chattanooga.  
Dr. E. G. Wood, Knoxville.  
Dr. H. B. Everett, Memphis.  
Dr. Lee K. Gibson, Johnson City.

### COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. L. W. Edwards, Chairman, Nashville (1939).  
Dr. E. W. Cocke, Memphis (1941).  
Dr. Battle Malone, Memphis (1940).  
Dr. Tom Barry, Knoxville (1938).  
Dr. T. R. Ray, Shelbyville (1942).

### LIAISON COMMITTEE

Dr. W. C. Dixon, Chairman, Nashville (1941).  
Dr. W. P. Wood, Knoxville (1940).  
Dr. Hiram A. Laws, Chattanooga (1939).  
Dr. Tom Mitchell, Memphis (1938).  
Dr. Tom R. Barry, Knoxville (1942).

### COMMITTEE ON INSURANCE

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Dr. C. M. Hamilton, Nashville.  
Dr. S. R. Miller, Knoxville.

### COMMITTEE ON MEDICAL DEFENSE

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Dr. H. B. Everett, Memphis.  
Dr. H. M. Tigert, Nashville.

### ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. B. F. Byrd, Chairman, Nashville.  
Dr. Oliver Hill, Knoxville.  
Dr. Percy Wood, Memphis.

### COMMITTEE ON EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1940).  
Dr. R. B. Wood, Knoxville (1938).  
Dr. D. W. Smith, Nashville (1940).  
Dr. H. B. Gotten, Memphis (1938).  
Dr. W. O. Baird, Henderson (1939).  
Dr. J. M. Lee, Nashville (1939).

### COMMITTEE ON MEMOIRS

Not filled.  
Dr. H. Quigg Fletcher, Chattanooga.  
Dr. E. L. Ellis, Maryville.  
Dr. L. J. Lindsey, Covington.  
Dr. B. T. Nolen, Franklin.

### COMMITTEE ON MATERNAL WELFARE

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Dr. M. S. Lewis, Nashville.  
Dr. H. P. Hewitt, Chattanooga.  
Dr. Andrew Smith, Knoxville.  
Dr. C. W. Friberg, Johnson City.  
Dr. L. C. Harris, Lawrenceburg.  
Dr. D. T. Holland, Newbern.  
Dr. J. E. Powers, Jackson.

### COMMITTEE ON CHILD WELFARE

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### CANCER COMMITTEE

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Dr. Howard King, Nashville.  
Dr. H. S. Shoulders, Nashville.  
Dr. J. W. McClaran, Jackson.  
Dr. Frank Smythe, Memphis.

### COMMITTEE ON PHYSICAL THERAPY

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Dr. A. M. Patterson, Chattanooga.  
Dr. Robert Patterson, Knoxville.  
Dr. A. H. Meyer, Memphis.  
Dr. J. F. Hamilton, Memphis.

### COMMITTEE ON POSTGRADUATE INSTRUCTION IN OBSTETRICS

Dr. Jas. R. Reinberger, Chairman, Memphis.  
Dr. Franklin B. Bogart, Chattanooga.  
Dr. O. W. Hyman, Memphis.  
Dr. John M. Lee, Nashville.  
Dr. J. O. Manier, Nashville.  
Dr. W. L. Williamson, Memphis.  
Dr. John B. Youmans, Nashville.

## ABSTRACTS OF CURRENT LITERATURE

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

Clinical Use of Cyclopropane. Eversole, Sise, and Woodbridge. Surgery, Gynecology, and Obstetrics, February, 1937.

Cyclopropane is heavier than air, inflammable, and the average anesthetic mixture is about fifteen per cent with eighty-five per cent oxygen.

Consciousness is lost in from one to two minutes, and surgical anesthesia is produced in ten to twenty minutes.

It is a slight respiratory depressant, heart irregularity occurs in eighty-two per cent of cases, the effect on blood chemistry is negligible, and there is no damage to vital organs.

Cyclopropane is valuable in operations on subjects where excess of oxygen is required such as thoracic surgery, hyperthyroidism, respiratory obstruction, cardiac disease, anemias, debility, and shock.

It is also useful in short operations demanding considerable relaxation and in obstetrics. Pre-operative medication is used in smaller doses than with nitrous oxide or ethylene as apnea may occur.

Stages of anesthesia are more rapid than with the other gaseous anesthetics, and the signs of anesthesia are not so definite. Overdose and respiratory arrest may occur without cyanosis.

The carbon dioxide absorption method is used. The use of cyclopropane represents another step toward the ideal anesthetic.

### DERMATOLOGY

By E. E. BROWN, M.D.  
Doctors Building, Nashville

Etiology, Pathology, and Treatment of Leukoplakia Buccalis, with a Report of 316 Cases. Francis P. McCarthy, M.D., Boston, Massachusetts. Archives of Dermatology and Syphilology.

He has graded leukoplakia from one to four according to the stages of intensity. He has also classified it on the basis of etiology as follows: group 1, faulty occlusion; group 2, chronic irritation; group 3, tobacco; group 4, syphilis. These etiological factors are thoroughly gone into. Tobacco is considered the most important and faulty occlusion the largest cause. Syphilis is an important factor, and is more often connected with leukoplakia of the tongue. He does not agree with the popular idea of older observers that it is always due to syphilis. The diagnosis, especially in grades three and four, is easy, but differential diagnosis is discussed. Treatment is also dis-

cussed, and he prefers electrocoagulation or desiccation. Leukoplakia is considered a definite forerunner of malignancy, and preventive form of treatment is the method of choice.

### OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.  
Suite 316 Doctors Building, Nashville

Pathology of the Cervix. Walter Schiller, American Journal of Obstetrics and Gynecology, 34: 430, September, 1937.

Among 100 women who come to the dispensary with carcinoma of the cervix fifty per cent are operable. Of this fifty per cent, we save by radiation or operation only twenty-five per cent. Thus neither irradiation nor surgery may give us much improvement in statistics of end results.

The early carcinoma and the small one are not identical. If carcinoma grew rapidly from its onset, then a small cancer would be a young one, but this is not true. It has been proven that in the early stage carcinoma grows very slowly, the curve of development first rises slowly and then suddenly ascends very rapidly. This fact offers a marvelous opportunity for early diagnosis.

Ordinarily we diagnose carcinoma only if we can demonstrate invasion. The cytologic characteristics are, however, the same in the invading ulcerating carcinoma as in this surface strip.

The author has found that carcinoma of the cervix can be differentiated from normal epithelium in about a fifth of the cases by three characteristics: (1) this zone is a little elevated, (2) the surface is not perfectly smooth and is somewhat dull, (3) the carcinomatous epithelium is opaque and whitish in color. About thirty per cent of all cases of beginning carcinoma gave the appearance of leukoplakia (meaning "white patch").

The author discusses the iodine test in detail, stating that it serves only to discover a carcinomatous zone in a layer of normal epithelium. For the differential diagnosis of the existing lesion histologic examination of the biopsy is necessary. For that we need not make a complete excision, for we are not interested in depth and wish only to examine the surface epithelium. This removal of the surface epithelium is made easily with a sharp curette, elevating the edge of the epithelium and peeling it off. The incidence of carcinoma is sometimes very high and sometimes very low. The man who examines all cases systematically has a low incidence. The author's statistics show that in 100 cases there are perhaps twenty-five with more or less well-developed white spots. Of these twenty-five, one can rule out ten to fifteen as being of the hyperkeratotic or traumatic type. Ten to fifteen biopsies must be made; out of these, one, two, and sometimes three are carcinomas. "I feel satisfied if in 100 cases I find one carcinoma."

It is a mistake to carry out the test in sus-



picious cases only. "If we could examine all women once or twice a year by the iodine test, then we would succeed in getting all carcinomas in the initial phase and all would have a definite possibility of cure. This point is of great importance."

The author has discovered 130 cases of this type since 1928. From 1928 to 1931 there were fifty-one cases, and of these forty-nine are alive and perfectly healthy after five years.

### INTERNAL MEDICINE

By R. B. WOOD, M.D.  
By D. R. THOMAS, M.D.  
Medical Arts Building, Knoxville

The Treatment of Myasthenia Gravis. Thorner and Yaskin. American Journal of Medical Sciences. Vol. 194, No. 3, September, 1937.

This report summarizes the treatment of six cases, diagnosis being made on history, observation of changing palsies, general increased fatigability, and favorable response to prostigmin. Each patient was subjected to several different forms of treatment—both to provide a control on his own basic condition and to the other cases in the group.

Until recently the site of the lesion producing this syndrome had been the subject of much speculation, but now it has been shown that "there is an area at the myoneural junction in myasthenia gravis at which point impulses suffer decrement or extinction." While this is one site of physiologic disturbance, it is very likely not the only one. The favorable influence of ephedrine and benzedrine indicate that sites other than the myoneural junction are involved.

Prior to this knowledge of the nature and site of the primary lesions in myasthenia gravis, many kinds of treatment had been tried, these varying with each individual's concept of the etiology. When the involvement of the myoneural junction was established, treatment by drugs whose pharmacologic action centered about this point was instituted. While spontaneous remissions occur in the course of the disease, the prompt and lasting response to some of the therapeutic agents causes the authors to believe that the relief was not in the nature of a remission.

In the use of glycine (aminoacetic acid), five cases in this group received fifteen grams daily doses from two weeks to three months periods, and none showed any symptomatic changes.

Three patients received roentgen therapy directed to the thymus, 800 r. being directed through each of two ports. They showed no significant change in their symptoms.

Since function of the myoneural junction is presumed to depend on the availability of acetylcholine at this junction, and since potassium chloride stimulates the production of acetylcholine in the tissues, it was tried. The patients showed no improvement with its use, either alone or in conjunction with some other form of treatment.

All cases were "strikingly benefited" by prostigmin, and when the drug was withheld, immediate relapse to the former state occurred. The drug was given orally, and the dosage was individually adjusted. The effect of each dose lasted from one to four hours. No tolerance was found to be developed for this drug, it being as effective after several months of treatment as when treatment was instituted. Occasional diarrheas due to the drug were controlled by the administration of atropine, grain 1 150. All patients eventually received a dosage ranging from five to nine fifteen-milligram tablets a day. None of the six cases showed complete remission of the symptoms, but the expense of the drug and its tendency to produce diarrhea and sweating in larger amounts limited its use.

Four of five cases showed a slight but definite improvement with ephedrine, grain three-eighths two to four times daily, but the associated unpleasant tremulousness detracted from its benefits. In trying to avoid this effect, benzedrine was used in combination with prostigmin in three cases, and all showed marked improvement. Two cases received prostigmin alone. Three cases received benzedrine alone, but in only one of the three was improvement sufficient to warrant the omission of the prostigmin. However, the continued use of the benzedrine produced insomnia, so it was used early in the day, and the prostigmin was used later in the day to avoid this untoward effect.

The authors selected prostigmin as the therapeutic agent of choice, it proving dependable in all six cases, so much so that response to this drug has become a diagnostic procedure in suspected cases. They feel that this is the first time benzedrine has been tried in combination with prostigmin, and that it is of considerable benefit.

### OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
Doctors Building, Nashville

Role of the Ophthalmologist in the Prevention of Hereditary Diseases. Dr. W. Clausen. German Ophthalmological Society, Heidelberg, July 6-8, 1936. Archives of Ophthalmology, September, 1937.

Patients with cataract associated with myotonic dystrophy should, without exception, be sterilized. The procedure appears fully justified in myopia of extremely high degree, so-called excessive myopia, in which severe alterations are noted as a result of traction in the region of the posterior pole at a comparatively early stage, especially if these pathologic changes allow one to foresee an early or precocious visual invalidism and if, in addition to the myopia, there is a certain hereditary tendency to retinal detachment. In closing, the reader of the paper discussed the practical results of sterilization laws and stated that he saw promise of far-reaching elimination of hereditary

ocular disease by the consistent and appropriate carrying out of a campaign of eugenic preventive hygiene.

### OTOLOGY, LARYNGOLOGY, RHINOLOGY

By W. W. POTTER, M.D.  
Medical Building, Knoxville

Diagnosis and Treatment of Primary Bronchial Carcinoma. Waitman F. Zinn, M.D. *Annals of Otolaryngology, and Laryngology*, September, 1937.

The author calls attention to the fact that primary bronchial carcinoma comprises ten to twelve per cent of all cancers. Fifty years ago it was about one per cent. There are various reasons for this seeming increase in this disease. First, fifty years ago the diagnosis was made by post mortems and the number of post mortems were comparatively low. Also, conditions accompanying the carcinoma very often confused those doing the post mortem.

The author states that the increased knowledge of other pulmonary conditions has tended to make possible the ruling out of these diseases, such as lung abscess, tuberculosis, etc., and has aided concentration on the real disease by early diagnosis.

No one factor has presented enough evidence to be pronounced the cause of carcinoma of the lungs. "As with cancer elsewhere in the body, a combination of factors met by a variety of irritants tends to produce the disease in different individuals."

Teamwork between the internist, radiologist, bronchoscopist, clinical pathologist, and thoracic surgeon makes the diagnosis easier and the treatment more satisfactory.

The author stresses the importance of careful examination early in the case. The early symptoms are often overlooked, and the most common one is the cough. There may be some blood in the sputum, and pain may be present, but it is not a constant sign. There usually is a slight rise in temperature.

X-ray examination showed positive in eighty per cent of the author's series, and he considers it the greatest value in the diagnosis. Palliative treatment may relieve the symptoms for a time, but the tumor continues to grow, and no treatment should be given until a positive diagnosis is made.

Bronchoscopy is an aid to the diagnosis, but a negative report should not exclude the possibility of malignancy. A biopsy should be taken if conditions permit.

There are few interesting case reports. The author feels that, if a positive diagnosis is made and the growth is in an available position for lobectomy or pneumonectomy, surgical removal is the procedure of choice. Otherwise, the use of radium or deep X-ray therapy is recommended.

### PEDIATRICS

By JOHN M. LEE, M.D.  
Doctors Building, Nashville

The Diagnosis of Nonopaque Foreign Body in the Tracheobronchial Tree. M. F. Arbuckle, M.D., St. Louis, Missouri. *The Journal of Pediatrics*, September, 1937.

A careful history in these cases will always establish a sudden violent onset. This usually occurs in a child previously well, but may occur in the course of some other illness. There is a sudden onset with violent paroxysmal cough and dyspnea. There may be stridor, cyanosis, and temporary unconsciousness. These symptoms may subside and give way to the "symptomless interval," but the above symptoms will recur and persist until the foreign body is removed.

Physical examination may show leucocytosis and fever within a short time after onset. Inspection of the bared chest may show lack of expansion and recession of the soft parts on inspiration. The ear held close to the mouth may detect an asthmatoïd wheeze at the end of a deep breath. An audible slap of a movable body in the trachea may be heard when cough brings the body against the vocal cords. In such cases the hand over the larynx may feel the palpatory thud.

If an area of lung is blocked off by the foreign body, an area of obstructive emphysema may develop, over which the resonance is increased and breath sounds are distant. If the trachea is blocked, these signs will obtain over all of both lungs, and there will be many rales over both fields. Should atelectasis develop, breath sounds over the affected area are absent, the percussion note is dull or flat, and tactile fremitus is absent. If the foreign body is movable, these signs will change with movement of the body.

Fluoroscopic examination and X-ray films may show changes in the movements of the chest walls, impaired excursions of the diaphragm, and changes of the heart outline that are significant and helpful in making a diagnosis and should always be employed, even though they do not show the foreign body.

When there is doubt as to the diagnosis in cases which give positive histories or in which any of the signs peculiar to this accident exist, even in the presence of a negative history, bronchoscopy should be recommended.

Histories of eight cases are recited, one of which serves to demonstrate the serious nature and possibilities of complications in neglected cases of foreign body in the lung.

## ROENTGENOLOGY

By FRANKLIN B. BOGART, M.D.  
Medical Arts Building, Chattanooga

### Increasing the Value of Intravenous Urography by Improvement in Technique. R. A. Berger.

A large proportion of failures to secure visualization in intravenous urography is due to technical difficulties. Details that should be carefully watched are:

1. Proper preparation of the patient (no fluids by mouth from midnight until time of examination).

- a. Breakfast of orange juice only.

- b. Mild laxatives and bland enemas to properly cleanse gastrointestinal tract.

2. Injection of an adequate amount of diodrast. Thirty cubic centimeters are used in adults and twenty cubic centimeters in children.

3. Accurately placed and maintained abdominal pressure.

An air-filled balloon is not sufficient. A folded sheet that just fits between the iliac crest plus the balloon is effective when tight pressure is applied.

There is no fixed time between the exposure following injection. The first film is made immediately following injection, which is usually five minutes after the injection is started. Subsequent exposures are made as indicated, that is, a diseased kidney may function poorly and require more exposure at longer intervals.

Cases are enumerated to illustrate the well-known fact that while some cases require retrograph pyelography following intravenous pyelography just as many require intravenous administration following the retrograde method.

#### ABSTRACTOR'S NOTE

A few years ago an article like this one, which deals with technical details, would have had no general appeal. With the widespread distribution of X-ray equipment and its use by the general man, technical details are of interest to the general man since only by attention to these details will he be able to do creditable X-ray work.

## SURGERY—GENERAL AND ABDOMINAL

By BATTLE MALONE, II, M.D.  
1400 Monroe Avenue, Memphis

### Extensive Burns. Treatment with Silver Nitrate and Methyl-Rosaniline. Hira E. Branch, M.D. Archives of Surgery, Vol. 35, September, 1937.

The ideal treatment for burns is one that, first, saves the patient's life; second, eliminates pain, shock, and toxemia; third, reduces the morbidity to a minimum; and fourth, allows the wound to heal quickly without skin grafting being necessary.

Since 1925 tannic acid has been used in the treatment of burns. This was successful when

used in an aqueous solution, but not in an oily base. A tannic acid gel was brought out later which proved successful, but the tanning process is slower with the solution. Then tannic acid was combined with silver nitrate, which further shortened the time of the tanning process.

Coagulation of devitalized tissue with tannic acid lessens toxemia, prevents loss of body fluids, adds to the comfort of the patient, and lessens scar formation. Its disadvantages are the necessity of the patient remaining quiet to prevent cracking of the coagulum, which allows infection to arise, and the difficulty of removing the coagulum with destruction of underlying islands of epithelium.

Methyl-rosaniline or gentian violet spray has practically the same advantages of tannic acid and in addition forms a pliable crust which has an antiseptic effect and helps combat infection. It is much more easily removed and can be soaked off. However, it does not have the astringent effect of tannic acid and does not prevent the loss of body fluids. The crust also takes one to three days to form.

The author relates the development of the combination of methyl-rosaniline with silver nitrate. The latter drug is used to take the place of tannic acid in that it coagulates the proteins immediately and prevents the loss of body fluids. Hence, the combination has the advantages of tannic acid without its disadvantages.

In 1935 ninety-five patients with severe burns were treated by this method with a mortality rate of 7.3 per cent. A chart of eighteen additional patients treated by this method is shown without a death, and only one required skin grafting.

The author's routine treatment is as follows:

1. A large dose of sedative is given.
2. The burned areas are washed with tincture of soft soap.
3. Debridement with removal of all loose skin followed by saline wash.
4. Spray with one per cent aqueous solution of methyl-rosaniline. After three or four minutes the entire burned area is swabbed with ten per cent silver nitrate.

5. Patient is placed in burn tent and sprayed with methyl-rosaniline every fifteen minutes for five times.

6. Fluids by mouth, hyperdermoclysis, and intravenously.

7. Transfusion if necessary.

8. Patient is allowed to walk about as soon as the period of shock is over unless burn is very extensive.

9. If coagulum remains at end of two and one-



half or three weeks, it should be soaked off with brine or by compresses treated with cysteine hydrochloride 1:200 solution.

### UROLOGY

By TOM R. BARRY, M.D., F.A.C.S.  
By G. A. WILLIAMSON, JR., M.D.  
Medical Building Knoxville

A Study of the Effects of Mandelic Acid. Anson L. Clark, Arthur C. Pattison, and S. T. Moore. Transactions of Southwestern Branch, American Urological Association, Omaha, Nebraska, 1936.

A synthetic short cut for the Clark ketogenic diet was discovered by Rosenheim, who found that mandelic acid could be substituted for beta-hydroxybutyric acid, which is excreted unaltered in the urine, where it establishes a bacteriostasis. Mandelic acid is nontoxic, as observed in a series of patients. In his clinical studies he added the caution that since mandelic acid was foreign to the body the treatment might cause renal irritation. In two cases granular casts and an occasional red blood cell were found in the urine following improvement on mandelic acid therapy, but disappeared in a few days on cessation of treatment.

The adult dosage suggested in treatment of urinary tract infections is twelve grams daily. He gives the usual prescription, which is in the form of the sodium or ammonium salt.

A series of experiments to determine the toxic effects of mandelic acid were carried out. Six rabbits were used in the first series, receiving various doses up to six times the therapeutic dose. On autopsy the rabbits receiving three times the therapeutic dose or more showed definite pathological kidney changes. A series of dogs were used in like manner, and, under anesthesia, were autopsied while heart and lungs were functioning. A complete abdominal and thoracic examination was made. The animals receiving from four to six times the therapeutic dose showed definite gross kidney pathologic lesions, both kidneys in each case being enlarged. Other organs were grossly and microscopically negative.

The author states that caution should be exercised in applying this type of therapy to patients with suspected renal deficiency, as mandelic acid, when administered in amounts of more than twice the therapeutic dose for eleven days, produces definite renal changes as shown by experiments.

The author gives one case of a female, which reveals the toxic effects of mandelic acid on the renal structures.

In summary he states that toxic effects of mandelic acid should be further studied before its use

is widespread. Frequent examination for renal irritation should be made, and it is not indicated for patients with a reduced renal function because of its irritating effects on the renal epithelium.

### BOOK REVIEWS

An Introduction to Dermatology. Richard L. Sutton, M.D., Sc.D., LL.D., F. R. S. (Edin.), Professor of Dermatology, University of Kansas School of Medicine, and Richard L. Sutton, Jr., A.M., M.D., L. R. C. P. (Edin.), Instructor in Dermatology, University of Kansas School of Medicine. Third edition published by The C. V. Mosby Co., St. Louis, Mo. Price, \$5.00.

A book of 665 pages with 229 illustrations. There are twenty-four chapters, each covering one classification. They have reclassified the diseases as much as possible according to etiology, and quite a number of new diseases are described. The text is condensed, elaborate descriptions and much statistical matter have been omitted, yet the essential lattice work of fundamentals has been retained. It should and will appeal more to the medical student and general practitioner than the specialist. It is an elementary manual, and this, together with brevity, should make it a welcome edition.

EMMETT E. BROWN, M.D.

Synopsis of Digestive Diseases. John L. Kantor, Ph.D., M.D., Associate Professor in Medicine, Columbia University; Gastroenterologist and Associate Roentgenologist, Montefiore Hospital for Digestive Diseases, New York. 302 pages, forty illustrations. St. Louis, The C. V. Mosby Company, 1937. Price, \$3.50.

This book, in a few pages of carefully condensed chapters, tells all we need to know about digestive diseases.

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Chapters are devoted to ulcer of the stomach and ulcer of the duodenum describing the morbid physiology, pathology, and complications and what is known of the cause.

The book then takes up, in the same concise, yet

thorough, manner, cancer of the stomach and diseases of the small intestine.

Important space is given to diseases of the colon and of the liver and gall bladder.

This book is well indexed and illustrated by drawings, and throughout the book may be found simple prescriptions and dietary suggestions.

It is the best little book we have on digestive diseases.

J. WITHERSPOON, M.D.

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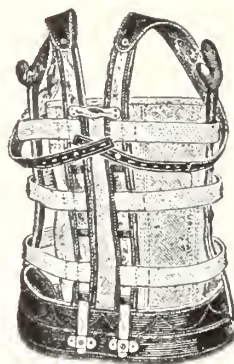
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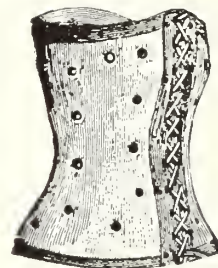
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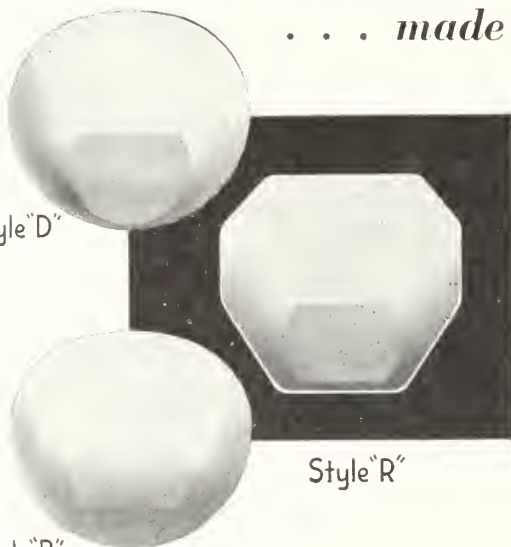
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### A STUDY OF 550 CASES OF CHRONIC CYSTIC, ERODED CERVICITIS AND ENDOMETRIAL HYPERPLASIA, MENO- PAUSAL MENORRHAGIA\*

EDWARD THOMAS NEWELL, B.S., M.D., F.A.C.S., Chattanooga

IN READING the histories of the above cases one is impressed with the fact that most of these patients came to the clinic complaining of some disturbance in the menstrual function—"female trouble." The greater percentage of these patients suffered from menorrhagia—next in frequency metrorrhagia, quite a few had dysmenorrhea. Nearly all of them complained of general weakness, nervousness, and pelvic discomfort. Amenorrhea was negligible as a symptom except in the obese and in those near or past the menopause. This is contrary to some writers. A vaginal discharge (leukorrhea) was present to a limited degree, but was not a leading symptom. Routine laboratory was done in all these cases. The urine was negative, as a rule, as was the Wassermann. The red cell count and hemoglobin were usually low, while the differential was consistently normal.

Smears from the vagina and cervix seldom revealed any specific organisms. Only a few showed Neisserian infection, while there was an occasional trichomona involvement. Neisserian is supposed to be the chief offender in endocervicitis, according to many authors, but our histories and laboratory findings are to the contrary. No cases of cervical carcinoma were knowingly in-

cluded in this series. Biopsies were made in all cases where cancer was suspected. All scrapings were sectioned.

Of the 550 cases studied, 534 were whites and sixteen were Negroes.

The average age was 36.8 years.

The youngest was thirteen plus years, the oldest sixty-nine years.

There were 512 cases in married women and in those who had been married.

There were thirty-eight cases in unmarried women.

Dilatation and curettage was performed in 521 cases.

Cauterization as well as a D. and C. was done in 439 cases.

Cauterization alone was done in ten cases.

One hundred eighty-eight cases had intrauterine application of radium, ninety per cent of which had a D. and C. at the time of application.

Eleven cases had radium needles implanted in the cervix—so-called doubtful cases, borderline cases—for safety and for the contentment of the patient, the surgeon, and the referring physicians. All of these had the preliminary D. and C. and cautery.

Of the 550 cases in this series, 536 had gas oxygen anesthesia.

Most of the exsanguinated cases were given preoperative and postoperative transfusions, followed by glucose, and later liver extract. The cases that received radium, for severe menopausal menorrhagia, were

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.

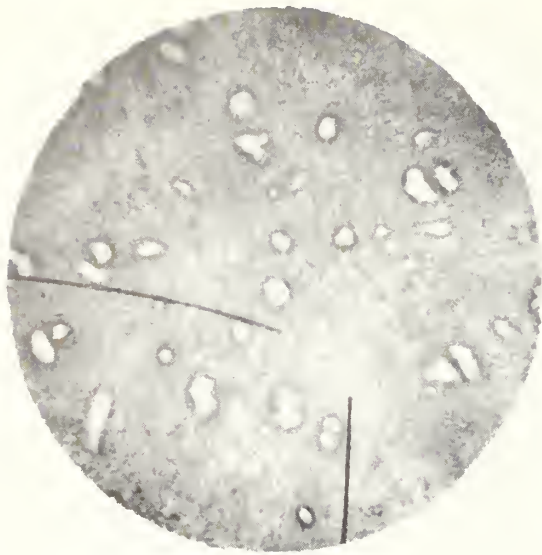


Fig. 1. Normal resting endometrium.  $\times 100$ .

only given one-third of the usual mgr. hours of radium treatment. Later on, when these patients were in better condition, the remaining radium dose was administered. This latter is usually done without any anesthetic, the patient remaining in the sanitarium overnight. These *advanced* cases cannot stand heavy radiation. There has been no mortality in the series.

#### DIAGNOSIS

The routine history and the vaginal and pelvis examinations will readily reveal the condition, except the hyperplasia of the endometrium. Recently J. Burch has recommended office biopsy with special spoon forceps for this important diagnostic measure. Specimens are obtained from anterior and posterior uterine mucosa without pain or morbidity. In this way, hemorrhage due to adenocarcinoma or fibroids should not be confused with endometrial hyperplasia—Novak to the contrary.

The scrapings at the time of operations, "D. and C.," should always be submitted to a competent pathologist. The macroscopic appearance of the scraping will in many cases lead one to a correct diagnosis of hyperplasia, yet there are borderline cases where with the microscope it is extremely difficult to decide whether the case is ordinary hyperplasia, precancerous, or genuine malignancy.

Lacerations and trauma of the cervix due to childbirth and instrumentations invite infection and produce erosions. The eroded cervix predisposes to cancer. The cervix is the distributing point of infections on the one hand, and metastases on the other; to the uterus, adenexia, and pelvis; this through its rich lymphatic system and contiguous mucous membranes. Sistrunk, a few years ago, brought to our attention that the cervix was often a seat of focal infection. This fact deserves more serious consideration than it receives.

The application of Lugol's tincture of iodine to the involved cervix will sometimes assist in clearing up macroscopically cases of supposed cervical malignancy. Should there be any doubt left in regard to the malignancy, a biopsy must be done, taking the specimen from the most probable site of involvement.

Nabothian cysts of the cervix are usually readily identified. However, some of them are quite deep in the cervix and often only brought to view when the cervix is incised or cauterized. They should be destroyed with the cautery.

Polyps are frequently found in the cervix complicating endocervicitis. The pedical may extend well above the internal os. Polyps are best removed, following complete dilatation of the cervix, by cauterization.

It is well not to cauterize the cervix without preliminary dilatation, except under the rare conditions. The chief reasons are that upper uterine pathology may be undiagnosed and go untreated, and that stenosis is very liable to develop following such a cauterization, with the production later of pyometria, a condition as formidable as the eroded cervix.

It is fully recognized that the cervix is a sex entity, under the surveillance of estrogenic hormones, which are capable of producing carcinogenic effects—similar to those that influence the endometrium and the breasts. The chief clinical manifestation of the hyperplastic endometrium, and the severely eroded and cancerous cervix, is *hemorrhage*. Hyperplasia is a simple proliferation of the endometrium, usually with definite histological changes, especially



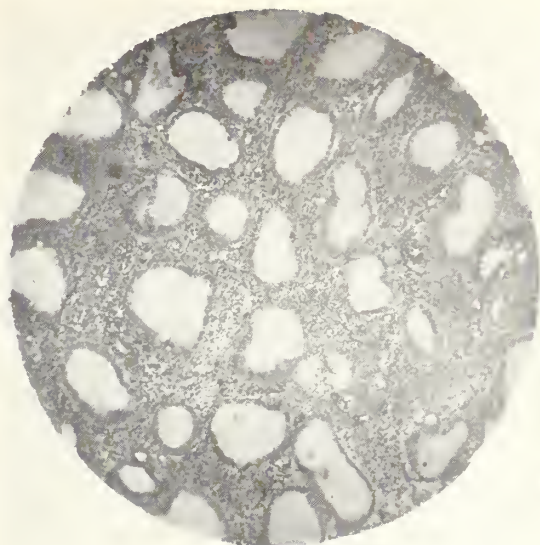


Fig. 2. Mild endometrial hyperplasia, the so-called "Swiss cheese" endometrium.  $\times 100$ .

of the glands, the so-called, "Swiss cheese" appearance. This condition may appear at puberty, causing menorrhagia. Hyperplasia is of frequent occurrence before and during the menopause, and it can and does occur quite frequently between puberty and menopause. Hyperplasia may even occur following the menopause. This latter condition, according to Novak, is occasioned by a retention of some of the estrogenic functions of the combined hormones.

While hyperplasia is the chief cause of intermenstrual bleeding, menorrhagia can and does occur from causes other than those of hyperplasia of the endometrium. It is well to consider menorrhagia from the dual viewpoint of the physiological hormone and the histological hyperplasia.

J. C. Burch, Witherspoon, Novak, Zondek, and others have done an immense amount of work in recent years on the pituitary, ovarian, and other hormones that are responsible for normal and disturbed menstruation. It is recognized that the ovulation takes place about the ninth day post menstruation; that the hormones from the anterior lobe of the pituitary "antuitrin" activate the Graafian follicle, causing it to ripen and rupture. The follicular, sex hormone, estrin (folliculin) (theelin), stimulates the growth, proliferation, of the endometrium making ready for menstua-

tion or implantation of the fecundated ovum.

Following the rupture of the follicle, luteinization usually takes place with the production of corpus luteum and progesterin, a hormone that neutralizes the effects of the estrin, causing the endometrium to cease proliferating and later, assisted by a special menstrual hormone, to produce menstruation.

The chief cause of menorrhagia in hyperplasia is the lack of corpus luteum balance, whereby the follicular hormone is in excess. The thickened endometrium is not cast off, the bleeding continues until the ovary produces sufficient corpus luteum; or artificial hormones are administered; or surgical procedures are instituted; or radium is introduced, with the destruction of the hormone-producing portion of the ovary. It is well to determine the metabolism in all such cases, for frequently there is present a hypothyroidism that requires attention.

With this delicate imbalance of so many hormones of the various endocrine glands, is it not short of a miracle that woman ever menstruates normally? And so when woman is motivated by so many finely graduated and different hormones, it is but natural that she be so intricate and inexplicable.

The exact cause and mechanism of menstruation has not yet been fully authenticated.

#### TREATMENT

From the above it would seem that the ideal treatment of hyperplasia and menorrhagia would be by hormone therapy, and so it is, but they do not always produce the desired effects. Much can be accomplished in selected cases by the proper administration of antuitrin-S, theelin in oil, and corpus luteum.

Amenorrhea is best treated in the obese by diet, light irradiation, to stimulate the follicles and by hypophyseal gland hormones and irradiations.

In treating the menorrhagias of puberty, after correcting all ascertainable disabilities, I administer antuitrin-S—and if this fails, resort to curettage. I often repeat the curettage once or twice, waiting for



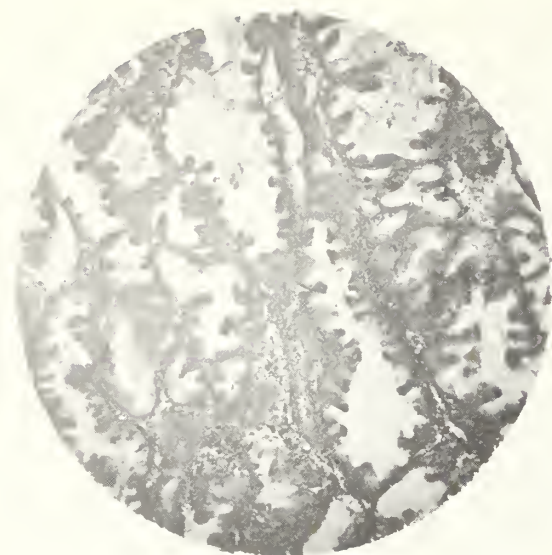


Fig. 3. Hypertrophy with infolding of the mucosa.  
x100.

hormone adjustment, and reserve small radium dosage, placed high up in the uterus, for my last attack upon the hemorrhage and the secondary anemia.

Following the above procedure, I have not had to hysterectomize a single case, as was the custom in severe cases twenty-five years ago. These radium cases, if properly handled, quite frequently become pregnant and give birth to normal children.

The hyperplasia cases between puberty and the menopause should have hormone therapy and repeated curettages, endeavoring to carry them through to the menopausal age, when radium will act as a "specific." Radium and X-ray are a blessing to women suffering from menopausal menorrhagia. In its use there should be no morbidity, no mortality, and no failures, provided the correct diagnosis has been made and there are no pelvic or abdominal complications. "The diagnostic curette."

In the "cautery treatment" of chronic cystic eroded cervicitis, John G. Clark, of Philadelphia, led the profession, as did Howard Kelly, of Baltimore, in the use of radium in menopausal menorrhagia and uterine fibroids. Clark's beautiful work in this respect, his insistence that the cautery is superior not only in cases of ulcerated and cystic endocervicitis, but in first and second degree lacerations, to amputations,

trachelorrhaphy and plastics, is a privileged memory never to be forgotten by those fortunate ones who saw him work, and who have followed his superior technic. See slides.

One must be careful to use the proper cautery, to cut deep enough and wide enough in the individual case. Make your spoke wheel cauterizations adequately close, and you will be rewarded with a smoothly healed cervix in six weeks to two months, one that more nearly approaches the normal cervix than can be accomplished by any other procedure. One should not cauterize acute or subacute cases.

The after treatment of every case is important. The cervix should be well dilated at time of the D. and C. and cautery and packed. It should be kept open until healing of the cervix is assured. Weekly inspections and treatment are important for good results.

#### CONCLUSIONS

A review of 550 cases of hyperplasia and endocervicitis successfully treated with hormone therapy, minor surgery, and radium alone or combined have been considered. There was no mortality.

Gas anesthesia was used in the majority of cases treated, for accurate diagnosis, curettage, and for effective treatment. The average time of hospitalization was five days.

In the series, two cases of pyometra developed that were relieved by repeated dilations. An extraperitoneal abscess developed in a case of gonorrheal endometritis and endocervicitis — subacute — following cauterization. The abscess was drained, and the patient recovered.

There were no vaginal burns or complications other than those noted above.

Thorough genital examination of women will reveal many cases of unsuspected cervicitis, endocervicitis, polyps, and hyperplasia, producing many complex symptoms and great suffering.

The early recognition of the above conditions with the application of appropriate treatment will prevent much distress and the probable development of malignancy.

Cervicitis, which is the most frequent of

all gynecological affections, should not be regarded lightly.

#### DISCUSSION

DR. W. C. DIXON (Nashville): It is a pretty big order to discuss Dr. Newell's paper in five minutes. He has pretty well covered the gynecological field. I think the title of his paper is probably a little misleading, or it was to me: 550 cases of chronic cystic, eroded cervicitis and endometrial hyperplasia, menopausal menorrhagia. I am sure he did not intend to infer that they are etiologically similar, because, as a matter of fact, there are a great many women with eroded cystic cervixes who do not have hyperplasia and there are a great many women with hyperplasia who do not have eroded cystic cervixes. I was a little confused by the title of his paper.

He spoke of endocervicitis and brought up the question of the gonococcus as a causative factor. Of course, the gonococcus does produce a good many cases of endocervicitis, but we have to remember that there are a great many other organisms that produce endocervicitis and perhaps only twenty or thirty per cent of the cases we see are produced by the gonococcus. Staphylococcus, streptococcus, colon bacillus, many other organisms will produce an endocervicitis. We recall the anatomy of the cervical glands as shown in the slide, that the glands are racemose in type and penetrate deeply into the cervix, and infection once implanted in these glands has a grand opportunity to grow and develop and to stay for many years. We must not depend too much on the question of a history of gonorrhea or assume that the gonococcus is the most frequent cause even of endocervicitis. The dysfunctional bleeding, the menopausal menorrhagia, as he described, is an endocrine disease. The bleeding is merely a symptom of a disturbed ovarian function. As he illustrated in his diagrams, it is the continuous stimulation of the follicle hormone of the ovary, estrin, and an absence of the luetin phase which keeps up the continuous bleeding.

Any woman with a bleeding uterus deserves a thorough examination and deserves examination of tissue removed from the uterus. Of course, radium is a specific in the treatment of the pure hyperplasia of the endometrium where we can exclude the question of malignancy. However, a great many of these women are deficient in other ways; many of them are hypothyroid. It is remarkable how many of these women with menopausal menorrhagia will have a low basal rate—I do not mean an extremely low rate, but slightly below normal—who will be greatly benefited by small doses of thyroid. Many of them can be relieved where you are absolutely sure that it is hyperplasia of endometrium as shown by the slides, and not malignant, by the use of the anterior pituitary-like hormone from pregnancy urine. Of course the simpler the relief we can give these people the better.

I think we should consider every case of menopausal bleeding after we can exclude malignancy as an endocrine problem and not merely attempt to relieve the bleeding without further consideration of the woman's condition.

As to the cystic eroded cervicitis, we have all learned from Dr. Cook this morning, and probably from other sources, that carcinoma of the cervix originates in ninety to ninety-five per cent of the cases in women who have borne children and that the trauma and infection occurring in the cervix after labor probably is a precancerous condition that eventually may terminate in malignancy, so that, as Dr. Newell brought out, we should not ignore women with lacerated cervixes. There was a time when laceration of the cervix was supposed to produce pain in the top of the head and a great many other vague and unrelated symptoms, but the pendulum swung the other way. After they tried to repair the cervix to cure the neurasthenia and got no results, then they began to sort of ignore the cervix, and now, fortunately, it is coming back into its own and cervical lesions are being given more consideration.

If we ever make any progress in the treatment of cancer of the cervix, I am sure it will have to be made by prevention rather than by cure, because we can say all we want to about early cases, personally I never saw but one or two early cases of cancer of the cervix in my life. Many women never have a symptom until they come in with a big hemorrhage and advanced carcinoma. There is no way to find that kind of thing early. What we should do is to make efforts to prevent malignancy of the cervix, and to do that if we will clear up these infections and lacerations of the cervix we will go a long step in that direction.

It is hard to estimate the incidence of cancer of the cervix in the general population.

Meigs made a study of the admissions to the Massachusetts General Hospital in an effort to obtain information on this point. He found that in thirty-three years about 39,000 married women over thirty years of age were admitted, and that 1.8 per cent of these admissions were for cancer of the cervix. This may be a little high for the general population, but the incidence of cancer of the cervix is fairly high.

There are some figures that go to show that correction of cervical lesions by repair, by amputation, or by cauterization reduces the incidence of cancer very greatly. For instance, there is a series of cases assembled by Saltzstein Topcik, published in the *American Journal of Cancer* in April, 1933, showing that in 18,000 women, who had had correction of cervical lesions, either by amputation or by cauterization or by efficient repair of their lacerations, there occurred only fifteen cases of cancer of the cervix. Now that is certainly bringing the thing down to the point where we can definitely say that the cystic eroded cervix is a precancerous condition and that efficient treatment of the cervix will lessen the incidence of



cancer. Of course, the slides showed some cases of erosion. We have to remember that erosions occur in virgins, in women who have never borne children.

Dr. Newell, I gathered from his remarks, makes cauterization a hospital procedure, puts the patient to sleep, dilates her, cures her, and then cauterizes her. My own practice is to cauterize the average case in the office without anesthesia; the patient gets up and goes on about her business, and it obviates the matter of hospitalization.

DR. W. T. BLACK (Memphis): As Dr. Newell has stated, chronic cervicitis and endocervicitis constitute one of the most frequent diseases with which the gynecologist is confronted. Just what always produces cervicitis and endocervicitis we do not always know. Cervical lacerations play a conspicuous predisposing part. Necessarily bacteria is responsible in all cases. The most frequent organisms are usually the staphylococcus, colon, and Neisserian, but we must remember that the streptococcus is sometimes present, and we must be mindful of this organism in performing operations upon the cervix. We must also consider chronic cervicitis as a focus of infection in many cases. When you examine a woman and find she is very tender posterior to the uterus in the sacro-uterine ligaments, the infection is secondary to a chronic endocervicitis. Pelvic pain is often due to a chronic endocervicitis. In many cases I advise the cleaning up of the cervix before advising an abdominal operation if there is no pelvic pathology apparent, and many times they will be relieved of their pelvic symptoms.

In treating chronic cervicitis or endocervicitis, there are many things to be considered. First, there are different types of diseased cervixes. Take the small, oval-shaped cervix in a woman who has never borne a child, and not badly affected, and that patient can be treated successfully in the office with a small cautery point. I have cauterized several hundred, and they continue about their business. But you take the other type of cervix that has been lacerated, that has a bad cystic condition, suspicious even of malignancy, may be an eversion of the cervix; that is a case for hospitalization and for an anesthetic. You should routinely take a biopsy in these cases. How are we going to treat these cases? Certainly we should not treat them as if the cauterization or conization were a simple thing. I perform a cauterization in the smaller type of cervix where conization would not be practical, but in the large cystic cervix very much hypertrophied, a conization and puncture of the cysts by the electric cautery is preferable. Before you treat the patient always determine the position of the uterus. You may go through into the bladder if you are not careful, or puncture the uterus posteriorly. Do not teach that cauterization is a simple thing; it is not by any means. I have known two patients to die from cauterization. I have seen several with pelvic abscesses necessitating abdom-

inal operation following a simple cauterization. It happened recently to a doctor's wife on whom an electrocoagulation was very carefully done. She had a large pelvic abscess with colon infection and had to be drained. She was in the hospital six or eight weeks. I know a case that died in the last few weeks from a cauterization. So do not think it so simple. Unless watched for three or four months postoperatively strictures often occur. Again, I do not agree with Dr. Newell about this thing of dilating and curetting in all these cases. I never dilate and curette if I can prevent it. In some we find it is necessary to treat in that manner, but you open up the internal os thereby opening up a barrier to infection, and if that woman has deep-seated Neisserian organisms or the streptococcus you carry them up into the uterus and you may have a fatality. If the uterus is displaced backward, it makes a very unfavorable case for dilatation of the cervix, because the material gravitates back into the body of the uterus, making the cauterization more hazardous. Discussing the next subject of hyperplasia of the endometrium, which is a perverted physiological condition, we find it at puberty; we find it at the menopause; we find it postmenopausal in women even who are sixty-five or over, who have a granulosa cell tumor of the ovary where a certain amount of the estrin producing cells are left, are stimulated to grow and produce menstruation. At puberty they may be relieved by giving pituitary or pituitary-like hormones. There is an imbalance between the pituitary hormones and the ovarian hormones. We see this condition frequently during the menopausal age. All of these women should have a diagnostic curettage to eliminate cancer.

Radium acts as a specific in these functional uterine bleeding cases during the menopausal age. Other means should be tried first, like the giving of hormones, although they are disappointing and very much abused. I have recently seen two cases of small submucous fibroids producing intense hemorrhages that were treated for two years with hormones.

DR. EDWARD T. NEWELL (closing): I am sorry I did not have an opportunity to read all of my paper, but I felt the slides were of more importance.

There were quite a few points brought out by Dr. Dixon and Dr. Black that are in the paper. Anyone who may be interested can read the paper in full in the *TENNESSEE STATE MEDICAL JOURNAL*.

I would like to say just a word in regard to hemorrhage at puberty in young girls. This is a very interesting subject and one that should require a great deal of thought on the part of the doctor who has charge of the case.

We do not like to use radium on these young girls. In the "older days" we had to resort to hysterectomy. In the past twenty years I have not had to hysterectomize any young woman for bleeding; some down to a million cells with twenty-



five or thirty per cent hemoglobin. They present a very distressing picture. I prefer to curette these cases first, use hormone treatment. By these procedures we are quite successful in a great number of them. Yet very frequently you have a return of all symptoms and then you are forced to use radium.

If you are going to use radium, use it high up in the uterus. Radium in these cases must not be applied in the cervix or down in the region of the internal os; you may produce a stricture and serious trouble, pyometria, and so forth. If the patient should become pregnant later, you have cicatricial tissue, stenosis, and normal delivery cannot take place. You would have to do a Caesarean section. These cases do respond very well to radium. We know that the younger women are more resistant to radiation than the older ones, yet you cannot tell exactly the amount of radium that will be required by any individual, and it is best to feel your way along with 350 or 400 milligram hours of radiation.

You can check the hemorrhage until hormone adjustment supervenes, which quite frequently takes place in these cases if you follow them up with supportive treatment. If necessary, you can use radium again, but my advice is to use as little radium as you can to obtain the results desired.

In regard to what Dr. Dixon said, I cannot concur exactly with his views in regard to Neisserian

infection. He says his cases are around twenty per cent. In my practice it has not been that high, five to ten per cent is what we have found, but we have not a large hospital, and we have only a few charity patients, and in the class of work we do we probably would get less Neisserian infection than one would find in a large general hospital.

I want to agree with what has been said about hypothyroid conditions. We always make metabolic determinations in these cases, and we frequently find patients suffering from hypothyroidism.

Dr. Black has said something about focal infections from the cervix; Sistrunk brought this out in a splendid paper which he read a few years ago before the Southern Medical Association.

The cervix should be considered as a focus of infection, not only locally, as Dr. Black has said, in the parametrium, but for the general body. One should always bear this in mind, and I think it deserves more consideration than we have been giving to it in the past.

In closing, let me emphasize what Dr. Black has also said in regard to the dangers of cauterization. Cauterization should not be taken lightly. It is very easy to cut too deep in any section. While you might encounter a severe hemorrhage, you are more likely to have infection later, and may be forced to do a secondary operation for pelvic abscess.

## AMBULATORY LIGATION AT THE SAPHENO-FEMORAL JUNCTION WITH RETROGRADE AND SUPPLEMENTARY INJECTIONS FOR VARICOSE VEINS\*

WILLIAM D. HAGGARD, M.D., JAMES A. KIRTLEY, JR., M.D., Nashville

THE COMBINED preliminary high ligation of the saphenous vein and the subsequent injection of sclerosing solutions has become in the past few years the treatment of choice in most cases of varicose veins of the lower extremities. The retrograde injection of a thrombosing agent at the time of the preliminary ligation appears to be an important additional step in decreasing the number of subsequent injections required.

### HISTORY

The history of saphenous ligation through the centuries is somewhat similar to the developments in the treatment of aneurysm, in that the site of ligation of the great saphenous has almost, century by century, approached the sapheno-femoral junction, while arterial ligation has shifted from ligation far proximal to the aneurysm to closure of the aneurysm from within. Edwards<sup>1</sup> has traced this upward progression of saphenous ligation from Hippocrates and Celsus, who made short incisions along the varices, to Homans<sup>2</sup>, who in 1916 stressed ligation at the sapheno-femoral junction to prevent recurrence of varices through higher collateral branches. Homans also advocated the excision of all varices. Many operative procedures have been advanced, the Schede division of veins between ligatures being the simplest. C. H. Mayo (1900) introduced the stripping out of the long saphenous vein after ligation by a ring-like handled instrument. One of us (W. D. H.) has employed this procedure in a considerable number of cases with very satisfactory results. We frequently stripped the vein in both legs simultaneously with two teams. It was combined by a modified Schede with a spiral incision below the knee and above the ankle when the stripping could not be done. The only failures oc-

curred where the saphenous was ligated high, but not as high as the sapheno-femoral opening, allowing the collateral circulation to be reestablished. Intractable ulcers were sometimes circumcised (to cut off the para-sympathetics), or occasionally skin-grafted at the same operation.

When any operation did not include the fundamental principle of ligation at the sapheno-femoral junction, the results were usually unsuccessful. De Takats was the first in this country to stress the importance of the procedure described in 1927 by Moskowitz of Vienna. This was the high ligation of the saphenous preliminary to the injection of sclerosing solutions in the varicosities of the legs.

### INDICATIONS

A careful history inquiring into possible hereditary factors, congenital anomalies, pregnancies, infections, and injuries to the extremities is taken. In pregnancy, which is one of the commonest causes of varicose veins, we strongly advocate treatment during the first trimester; but not after that. The patient's symptoms are recorded so that the ultimate results may be better evaluated.

A complete physical examination is done and any possible mechanical obstructions to the veins noted. Pelvic and rectal examinations should always be made. A brief description of the varicosities is then recorded. We have used only two simple tests in examining varices.

First, the Trendelenburg test. The patient lies down and the leg is elevated to a forty-five degree angle so that the veins empty, then the main trunk is compressed below the fossa ovalis with the thumb, and, with the patient standing, the filling time from below is noted. On releasing the compression, the rapid filling from above proves the incompetency of the valves in the main saphenous. Secondly, the von Perthes test, or "walking tourniquet" test, of simply

\*Read before the Tennessee State Medical Association, Knoxville, April 13, 14, 15, 1937.

placing a tourniquet on the mid-thigh just tight enough to constrict the superficial veins, and noting the tension and appearance of the varicosities. The patient is instructed to walk rapidly around the room for several minutes, and again the veins below the tourniquet are observed and checked against the former findings. If the veins are as before, or even less tense, the competency of the valves of the communicating veins and the deep femoral vein is proven. In addition, we are certain that the deep vein is unobstructed.

These two tests take only a few minutes and give all the necessary information. In general, we feel that all patients with varicosities having a positive von Perthes test will be benefited by ligation at the sapheno-femoral junction, except in varices limited to the small saphenous vein in the calf.

#### CONTRAINDICATIONS

The contraindications to any active treatment of varicosities are determined by a careful history and physical examination. In general, they are as follows:

1. Extensive cellulitis engrafted on an ulcer.
2. Either a superficial or deep phlebitis.
3. Any interference with the deep venous return, such as an intra-abdominal mass or an old deep phlebitis.
4. Any systemic disease, as cardiovascular renal disease, or active T B C.
5. Peripheral arterial diseases are also of primary importance, though not necessarily contraindicating treatment of varicose veins later, since the object in both is to improve the circulation in that extremity.<sup>9</sup>

#### TECHNIQUE

Although we require the patients to remain ambulatory, they are all hospitalized and the ligation carried out in the operating room. This will be discussed later. Just before operation an Ace bandage is applied lightly from the lower leg to the mid-thigh so that the superficial veins are partly emptied, but not obliterated. The "empty vein" technique during injections has been stressed by Bennett-Jones in England.<sup>10</sup>

With femoral area prepared and draped, the femoral artery is palpated in the crease

of the groin below Poupart's ligament, and a wheel of one per cent procain injected intradermally over that point and extended medially for about six centimeters paralleling the ligament. A small amount is injected into the subcutaneous tissues and a five-centimeter transverse incision made. The vein is usually just beneath the superficial fascia and is dissected up to the femoral junction. Near this point the superficial epigastric, the external pudendal, and the superficial circumflex iliac veins are fairly constantly encountered. These are ligated and divided at their junction with the saphenous. The sapheno-femoral junction is then clearly exposed and the vein divided between clamps. The *proximal* stump is then ligated with braided silk just at its junction with the femoral. With an artery clamp still on the distal end of the vein, a small needle is introduced into the vein and about fifteen cubic centimeters of blood withdrawn into a twenty cubic centimeter syringe, which already contains five cubic centimeters of five per cent sodium morrhuate. The mixture is then reinjected into the vein and the vein ligated *below* the site of injection. The short segment between the clamp and ligature is then excised. The wound is closed with a few interrupted subcutaneous sutures after obtaining hemostasis. The skin is closed with a nonabsorbable suture. A single gauze "flat," with adhesive extending an inch beyond the gauze, makes a satisfactory dressing.

The Ace bandage is placed below the knee and the patient returned to his room, but instructed to walk to the bathroom at least several times during the day. The patient is allowed to leave the hospital early the next morning with instructions to continue walking, but to avoid long flights of stairs or lifting heavy objects or straining. The skin sutures are removed in about five days and unless there is considerable reaction along the vein, the first injection below the knee is given then, and subsequent ones at weekly intervals. Sodium morrhuate has been used each time. The Ace support is worn for several weeks.

With the exception of several minor modifications and the use of sodium morrhuate,



the above technique is similar to that reported by Faxon<sup>3</sup>, Howard<sup>4</sup>, Edwards<sup>1</sup>, and Swinton.<sup>5</sup>

#### DISCUSSION

When the valves of the main saphenous vein become incompetent, blood flows downward to the foot and a "vicious cycle" is established. The ligation of the saphenous above its highest branch is the most important step in treating varices, *regardless* of subsequent procedures, whether it be "stripping out," ligations, excision of these veins, or injections. In the first wave of enthusiasm for the injection treatment, this was sometimes overlooked and as fast as old varicosities were obliterated by injection new ones appeared. With preliminary ligation, however, the number of injections required is often very small, and thrombosis of the main trunk has frequently been noted following simple high ligation. We believe that the main saphenous trunk and branches should be divided between ligatures, since recanalization has been shown to occur later. The retrograde injection at the time seems especially valuable, since in several cases we have noted a firm thrombosis extending from the groin to the inner ankle. We have preferred relatively small amounts of sodium morrhuate to any other sclerosing solution, since it causes just as much thrombosis, is not painful and does not cause cramps, and rarely causes a slough if accidentally injected outside of the vein.<sup>6</sup> Ochsner and Mahorner<sup>8</sup> found it to be the most effective thrombus-producing solution of the twenty-one sclerosing solutions studied. Edwards<sup>1</sup> prefers it in private practice. Recent workers report that monoethanolamine oleate, a fatty acid solution, is the most ideal sclerosive agent at the present time, being a synthetic improvement on sodium morrhuate which is a cod-liver oil soap.<sup>11</sup>

So far, we have performed all ligations in the hospital and believe this is safer than attempting it in the office. Many of these patients are obese and they are hospitalized for a time to clean up the groin. As mentioned before, however, the patient continues to be ambulatory.

Two cases are briefly presented, which illustrate principles already mentioned.

*Case 1.*—A young man of twenty-five had had very large bilateral varices since the age of seventeen. There was no history of phlebitis or injury. In the fall of 1934 he received several injections below the knee without relief. In January, 1935, bilateral saphenous ligation six inches below the sapheno-femoral junction was done, and the main trunk stripped out and a local excision below the knee carried out. Fifteen subsequent injections were made, but as the patient expressed it himself, "two new veins came up for every one injected." About fourteen months later examination showed a recurrence of all varices, with tests showing incompetent valves in the veins replacing the main saphenous, and on walking with a tourniquet around the mid-thigh there was a remarkable decrease in the varicosities, showing the deep circulation to be competent. A month later bilateral sapheno-femoral ligation with retrograde injection was done. A dilated saphenous stump was found on each side. As is usually the case, recurrence was due to the collateral circulation through the upper



Fig. 1. Varicose veins for over thirty-five years. Ulcer three months' duration.



Fig. 2. Three months after ligation and retrograde injection. Only one subsequent leg injection.

branches, which empty into the saphenous just before it joins the deep femoral vein. Although the time since the last operation is too short to judge the final result, the patient states that his legs are better than at any time during the past twelve years.

*Case II.*—A man of forty-five years has had varicosities in one leg following an injury when he was eight years old. For years he has slept with his leg hanging down from the bed, and recently developed several small ulcers. These healed under an Ace bandage, and ligation at the sapheno-femoral junction with retrograde injection was done. The saphenous was as large as one's thumb at that level. Three injections have been made since and a "blowout" varix on the calf of the leg excised locally in the office. Further injections will be made in this case.

One photograph made with infra-red film is shown for comparison. Often hidden veins, which "feed" an ulcer or "rocket burst" in the skin, can be seen with this technique and obliterated by injection.

In only one instance have we injected more than five cubic centimeters of sodium morrhuate—four cubic centimeters were injected on each side on that occasion. No ill effects have been noted.

We are not prepared at this time to present final results, since most of the cases, in which this technique has been used, have been treated during the past twelve months. It is our impression, however, that the recurrences will be less, and certainly the pe-



Fig. 3. Infra-red photo of varicosities.

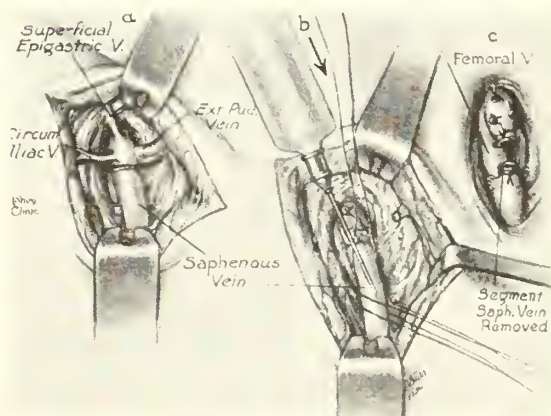


Fig. 4. After Swinton, Lahey Clinic technique of sapheno-femoral ligation and retrograde injection.



riod of hospitalization is shortened at least sevenfold. Recurrences following injection therapy alone vary from thirty-three per cent to ninety-eight per cent in large clinics where results were carefully checked by the same staff.<sup>1</sup> The dangers of wound infections and postoperative pulmonary complications are not as likely with ligation as in the vein-stripping procedures, where several incisions and a general anesthetic are necessary.

There are many instances of varicose veins of the lower legs in which the valves above the knee may be competent. In such cases, injection of sclerosing solutions alone will suffice.

The treatment of varicose ulcers will not be discussed except to state that treatment of the veins as well as the ulcer is necessary. Hospitalization for four or five days with hot wet compresses and then ligation is usually carried out in the absence of any cellulitis. The ulcer may be excised and grafted at this time. An Ace support or elastoplast bandage will aid materially in the subsequent healing of the ulcer.

#### SUMMARY

1. The importance of a complete history and examination were stressed, including the simple but informative Trendelenburg and von Perthes tests.

2. The indications and contraindications were mentioned.

3. The technique of the operation stressing the importance of ligation at the sapheno-femoral junction and division of the branches between ligatures was described.

4. The retrograde injection of the sclerosing solution (five per cent sodium morrhuate) at the time of ligation was advocated.

5. Two cases, one of recurrence, showing importance of high ligation were briefly presented.

6. The necessity of subsequent injections was stressed.

7. The relative ease, success, and decrease in hospitalization and postoperative complications of this combined method over the vein stripping and all other methods make it the procedure of choice in treating properly selected cases of varicose veins of the leg.

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11. Biegeleisen: "Fatty Acid Solutions for the Injection Treatment of Varicose Veins." *Annals Surg.*, 105: 610, April, 1937.

#### DISCUSSION

DR. D. W. SMITH (Nashville): The essayists have given us an excellent presentation of a comparatively new method of treating certain selective cases of varicosities. I say relatively new in view of the fact that some of the large clinics have been using this procedure only for a period of about five or six years. The fact that a new procedure is being advocated, which is applicable to certain selective cases, is evident that no treatment thus far is universally satisfactory. In the type of cases presented here, the principal factor which makes it necessary to modify the previous types of treatment is hydrostatic pressure. The hydrostatic pressure of the saphenous vein was demonstrated by de Takats and coworkers to be 210 centimeters of water, which is increased by lifting, coughing, straining at stool or any other factor which might increase intra-abdominal pressure. In those cases which have large dilated saphenous veins with positive Trendelenburg and Von Perthes tests it is certainly reasonable to assume that the period of permanent relief should be greatly enhanced by the ligation of the great saphenous at the sapheno-femoral junction, I might add regardless of the type of subsequent treatment. I wish to reemphasize the importance of ligating the superficial epigastric, superficial circumflex and external pudendal veins if they empty into the great saphenous vein. And, too, I believe the chances for a permanent relief would be greater if the small saphenous vein were ligated at the



same time at the sapheno-popliteal junction, because of the large anastomosing vessels between the great and small saphenous veins.

Some writers advocate ligation of the saphenous at the highest palpable or dilated portion of the vein. In which case ligation would be carried out occasionally at the mid-thigh, knee, or calf of the leg. I feel that one should ligate the saphenous at the sapheno-femoral junction if operative procedure is employed at all, even though some of the valves of the saphenous may be competent. To ligate at the mid-thigh one has only temporarily relieved the hydrostatic pressure to be reestablished later by the collateral circulation.

The essayists are to be congratulated upon the beautiful results obtained, but in those cases with enormously dilated saphenous veins, I wonder if the cosmetic effects would not be better to omit sclerosing agent at the time of ligation because the size of the great saphenous and its branches will greatly diminish during the subsequent three to four weeks.

We recognize the fact that some of the valves of the great saphenous vein and its communicating veins are competent with the patient in a prone position, while the reverse is true when the patient is standing, because when the patient is standing the valves are not large enough to reach across the extradilatation of the vein. To inject the sclerosing agent into the vein with the patient lying down it is certainly reasonable to assume that a portion of the communicating veins will not be affected by the sclerosing agent. Therefore, to produce a thrombosis of the main trunk and leave patent communicating veins, we might expect in some cases a recanalization in due time. Therefore I would advocate that these injections be made with the patient standing.

DR. GEORGE WILLIAMSON (Columbia): Mr. President and Gentlemen: First of all I want to condemn what is being done now in the practice of injecting these veins without ligating. That is absolutely useless. The essayist did not bring that out because he took for granted, I suppose, that nobody was doing it, but it is still being done.

As you know, there are three routes of the blood from the lower extremity: first, the saphenous or superficial system, the femoral vein and its tributaries, the communication of the veins between these two. The valves in the superficial system are the first to become incompetent, but if the condition persists and involves the communicating valves, this leads to stasis, edema, death of the tissue, and infection in the lymphatics, and ulceration.

The essayists mentioned the Trendelenburg and von Perthes tests, but a modification will serve every purpose. A bandage is applied and the patient allowed to walk about. If there is no pain the deeper circulation is judged competent, but if there is pain on exercise, any obliteration of the superficial vein should not be attempted.

DR. W. D. HAGGARD (Nashville): Mr. President and Gentlemen: I have, as many of you have, gone through all the stages in the various methods of treatment of varicose veins of the leg. We had very excellent results from the vein stripping. It is a considerable operation requiring general anesthesia and usually performed by two teams simultaneously. The only failure we had with those was where we ligated the vein too low, and that, of course, as you readily understand, is the main point in this presentation, that the vein should be ligated so close to the femoral junction that there is no opportunity for collateral circulation, particularly when three and sometimes four veins are ligated at the same time.

As you understand, it is done under local anesthesia very quickly, occupying a short time, one group on one side and one on the other. I really think that this is the answer to the severe cases. It has been extremely satisfactory to us in those that have been failures by any other means.

You will recall that Trendelenburg in the beginning made a long incision from Poupart's ligament down almost to the malleolus, but that was too much. He found that the trouble came along the inside of the knee where it would knock against the other knee, and that part of the scar was always at trouble. Then they began skipping the knee and undermining it with the long-handled curette with the dull round eye that you are familiar with. The question arose: Why can't we do that from the very start so that after ligation of the saphenous one can thread the ligature on and strip it out almost to the knee at one time, and then jumping the knee, go down? Our difficulty always was in the varicosities below the knee. That is particularly true of those large groups of the little saphenous that become real tumefactions. It is foolish to undertake to treat that kind of case with injections. We then went through the injection stage, as all of you have.

Of course, while it is very satisfactory in a considerable number of cases, it has been very disappointing in others. As a consequence, we have struck upon this method as simplifying it very much indeed, almost minimizing it. You cannot really do it at the office, but you can almost, and the patient is in the hospital only one day.

About the ulcers, which we have not discussed here, I might say two things: (1) that if anything is going to be done to the ulcer, if you cannot cure it up beforehand, it is a good plan, I think, to excise it and skin-graft it with pinch graft at the same time. To be sure, that occupies a little longer period, but not very much longer. You can avoid that sometimes by the Lastex bandage if you take some of the neutral rubber and put on it and keep the bandage on for a number of days. We learned that from the Unna boot long ago and subsequently with the Ace bandage, and particularly with one that would be so permanent that a man could wear it for a number of weeks and months, and I have often seen the man come back with great

relief and walk into the office on a cane and go out, when he had an elastoplast bandage on, without the cane, in great comfort and the ulcer would heal up. If you allow this neutral solution of rubber to be applied on the inside of your rubber bandage it holds the reparative fluids there and often will cure the ulcer before you have recourse to the operation.

Of course, there is no such animal as a royal road to success, if you will pardon the metaphor, but I believe that this is the answer to the severe cases, the recurrent cases, and is the simplest method that we have been able to employ in the treatment of varicose ulcers.

DR. EDWARD T. NEWELL (Chattanooga): I have enjoyed this paper very much and I think it has added a very great deal to our armamentarium in the treatment of very severe cases. Yet I do not agree entirely with the essayists in that sclerosing methods which we are using and have been using are not applicable in a very large number of cases. In fact, I believe that the larger percentage of cases can be treated satisfactorily without the ligation of the saphenous vein at the junction with the femoral vein.

As Dr. Haggard has so beautifully and graphically described, the stripping methods which we used to use, and then the olive pointed bougie that we used to tie around the vein and slip down

through and evert the vein and drag it out, and the long incisions which we made were mutilating and dangerous and sometimes produced mortality or kept the patient a long while in the hospital. That day is past.

The cases shown on the slides here cannot be treated in any other way except as described by the essayist and Dr. Haggard. Where we have varicosities below the knee and slightly above, with large ulcers that have been present for a long time, we prefer elevation of leg, treatment with hot pack for several days, and then the injection. I prefer quinine, hydrochloride, and urethane. You may use glucose or salt or whatever one prefers.

It is almost magical how these ulcers heal following vein injections with some sclerosing agent and assisted by application of an Unna's boot.

We should be very grateful to the essayists for bringing this particular phase of varicosities to our attention. I feel that it adds a great deal to the proper care of this very serious condition.

DR. J. A. KIRTLEY, JR. (closing): We would certainly agree with Dr. Newell that a large number of cases of varicose veins can be treated successfully by injection alone. As one of the indications we stress the incompetency of the valves in the saphenous above the knee and feel that it is in that type of case that ligation will have to be performed in addition to the injections.

# THE JOURNAL

OF THE

## TENNESSEE STATE MEDICAL ASSOCIATION

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H. H. SHOULDERS, M.D., Editor and Secretary

NOVEMBER, 1937

## EDITORIAL

### A STATEMENT CONCERNING MEDICAL LEGISLATION

As was stated editorially last year, it is not only important, but almost imperative that the laws which govern the practice of the healing art, in Tennessee, be amended.

In January of this year the legislative committee of the association made an effort to secure the passage of amendments to these laws. These efforts met with failure.

A brief discussion of some factors which contributed to this failure may aid us in making the proper sort of plans for our next effort. The next effort must be made.

It is important that doctors of medicine alter their viewpoints in some respects in order that success be achieved.

It is necessary that we recognize and keep before us some fundamental political facts. We must recognize, first, *that osteopathy and chiropractic are recognized by the state as branches of the healing art.*

Second, we must recognize that this recognition has been given without regard to whether medical doctors recognize them as such. This is evidenced by the fact that the people of the state through their elected representatives in the legislature enacted laws which established boards of examiners in osteopathy and chiropractic which license and govern these practices.

Third, these laws were enacted in Tennessee, as they were in most other states, over at least some opposition on the part of medical doctors.

It must be borne in mind that we are discussing a political situation and not a scientific subject. We would not for one moment debate with any doctor the scientific merits or demerits of these recognized branches of the healing art. We are perfectly bold in calling attention to some facts, which are of political significance. These practices are recognized by the public as branches of the healing art. The attitude of the public determines whether we succeed or fail in our efforts to elevate the standards of the healing art.

The legislative committee of the association sought the passage of what is known as the Basic Science Law. Experience with this law in other states has demonstrated its effectiveness in elevating the standards of practice. In each of these other states the basic principle in the law is the same, but no two of them are alike in all their provisions.

The fundamental basic principle in the law is this: *All persons who desire to practice any branch of the healing art are required to submit to an examination in the five basic sciences, namely, anatomy, physiology, chemistry, bacteriology, and pathology, by a board of examiners in the basic sciences before they can be examined by the special board of examiners for the branch (medicine, osteopathy, or chiropractic) they desire to practice.*

It is a recognized principle that any person, to be able to practice any branch of the healing art, must have a knowledge of these basic sciences.

There is wide variation in the setup of the board of examiners in the basic sciences in these several states. In the so-called model basic science law it is provided that the board be composed of scientists only, in contradistinction to practitioners of any branch of the healing art.

Variations from this provision are many. They have been necessary, evidently, for the very practical reason that it was impossible to get the *Basic Science Principle* adopted by the state without such alterations.

The bill first introduced in the last legislature provided that the board of examiners be composed of medical doctors. This



provision was objected to, of course, by the osteopaths and the chiropractors, though the osteopaths expressed a keen desire to have a basic science law enacted; that is to say, they approved of the basic science law, in principle, but they did object to the provision in the bill which created a board of basic science examiners composed only of doctors. These other groups (osteopaths and chiropractors) had no difficulty in convincing members of the house and senate that this provision of the bill was unfair. This provision, in fact, served to put the medical group in a defenseless position from a practical political standpoint.

Since the osteopathic group seemed very anxious to cooperate in securing the passage of the basic science principle in a law, it was deemed appropriate to discuss with their representatives some revisions in the pending measure which would meet their approval. As a result of these discussions, a provision was drafted which provided that the basic science board be composed of four doctors and one osteopath. A majority of the legislative committee felt that it would be appropriate and wise to agree to such an amendment with the full assurance that both groups would use their best efforts to secure the adoption of the basic science law as amended.

A minority membership of our legislative committee objected to the adoption of such a provision. As a result of this division, the law had no chance to pass.

At this point it might be appropriate to mention that the chairman of the committee of the senate which had this bill under consideration was under the treatment of an osteopath at the time, and a fair number of the members of the house and senate actually patronize osteopaths and chiropractors. This fact is brought into the picture to indicate that these leaders, in political thought and action, regard osteopathy and chiropractic as branches of the healing art.

The osteopathic group objected to the provision in the model bill which creates a board of examiners composed entirely of scientists. They said in effect, "You doctors have three medical schools in the state of Tennessee. We osteopaths have no

school in the state. Of necessity the board would be drawn very largely from instructors in these medical schools, and as a result medicine would be represented on the board and osteopathy would not be."

It is fair for us to ask the question: Who could conduct an examination in anatomy except an anatomist? Where would one go to find an anatomist, who is not a practitioner, except to a school where anatomy is taught? The efforts of the committee to secure the acceptance, by the osteopathic group, of this provision in the so-called model law were opposed and had to be abandoned.

As stated above, a minority group of our legislative committee objected to the inclusion of an osteopath on the examining board. Their objection was based on the ground that such action on the part of our committee would constitute a recognition, on our part, of osteopathy and chiropractic each as a science and as a branch of the healing art.

A majority of our legislative committee held an opposite view. It was not possible after a long discussion to reconcile these two viewpoints.

This is the situation which must be reconciled if we are to succeed in our efforts to pass a basic science law. It therefore deserves special consideration. In this consideration one must set himself straight in his thinking and dismiss all emotion and prejudice. First, what is our objective? It is the elevation of the standards of the healing art as defined and practiced in Tennessee.

Of what does the healing art consist? As recognized by the state, the healing art consists of medicine and surgery, osteopathy and chiropractic.

Are we trying to elevate the healing art as defined by medical men? No, we are trying to elevate the practice of the healing art as defined and recognized by the state. The state does not accept the definition made by the medical group.

Are we dealing with a scientific subject or a political situation? The answer is very emphatically—we are dealing with a political situation. We are compelled to work

with the definitions made by the state and accepted by the public.

Would it be recognizing osteopathy and chiropractic as branches of the healing art if we doctors agree to an osteopath being on the basic science board with doctors? Certainly not. It would be recognizing the fact that the state has already recognized them regardless of any opinions we may hold. We are living in a democracy. We cannot determine what any man's religious or political beliefs shall be.

Would such a board of basic science examiners be capable of functioning to elevate the standards of practice as defined by the state? Certainly it would. Each applicant for a license to practice any branch of the healing art as defined by the state would be compelled to demonstrate a knowledge of the five basic sciences. Certainly one osteopath could not prevent a wholesome result, even if he were so disposed, which is not alleged at all. Such a board has been most effective in other states, notably in Minnesota.

Is it not possible for doctors to do the examining of all the groups? Yes, if such a bill could pass. But that is impossible. The other groups can defeat such a bill. No legislator would vote to accept osteopathy and chiropractic as branches of the healing art and turn right around and vote for the medical group alone to pass on the ability of an applicant to practice one of the other branches.

This has gone on long enough surely. Our viewpoints and our actions must be practical. We must recognize facts as they are if we are to succeed.

There is plenty of time between now and the assembling of another legislature for doctors to think this matter through. We can recognize conditions as they are, and determine upon practical procedures, or else we can cling to theoretical considerations and meet defeat again and again.

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THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION

We have taken occasion to call attention to the services rendered by the Council on Pharmacy and Chemistry of the American

Medical Association several times. This council rarely ever gets into the headlines of newspapers except when it is challenged in the courts by some drug house.

It is interesting to note that the news agencies went to the council to know something about the drug, Elixir Sulfanilamide, which is alleged to have caused the death of several people recently. It is interesting to note that the press representatives received a very clear, unbiased statement of fact.

A famous old instructor in medicine once said, "We pour drugs of which we know little into bodies of which we know less."

Anyone who takes the responsibility of prescribing powerful drugs certainly must know all he can about the patient and the drug prescribed.

The Council on Pharmacy and Chemistry is one of the greatest possible aids to the profession in keeping us informed about new developments in drugs. This council is alert, cautious, and dependable. It would be a fine thing if we should keep informed of all the actions of this council.

Mention should be made of the fact, also, that this council exerts the greatest possible protection of the public. Its rulings certainly have not the force of law, but nobody need commit an error through ignorance.

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AN INTERESTING AFTERMATH

Many years ago a sage made the observation that "we are more often governed by impulse than by conclusion." Every one who has much experience with human beings recognizes the truth of the statement.

The *Nashville Tennessean*, Thursday morning, October 28, carried a news item on the front page which attracted attention. It was headed "Elixir Scares Senate; Drug Bill Retracted."

From the story it appears that some representative had introduced a bill to create a pharmacist and the bill had passed the senate. After it had passed, Senator Harwell, of Shelby County, insisted that he wished to vote against the bill, and called attention to the fact that the effect of the act would be equivalent to licensing someone to sell a poisonous drug such as the sulfanilamide that has killed so many peo-

ple recently. As a result of this discussion, the senate immediately reversed itself, and on motion of Senator Graves, of Knoxville, the action of the senate was reconsidered, and on motion of Senator Morgan, of Hamilton, the bill was sent to the table.

For many years the senate and house have been creating doctors and pharmacists by just such acts as this one.

Such bills are always local bills. They are drafted so as to apply to one county and, in many instances, apply to one single individual. It is difficult for other senators and representatives to oppose the passage of such local bills. They are often passed without a roll call. It is a common courtesy that has grown up in the house and senate that local bills are not opposed by representatives and senators from districts that are not affected by them.

There may have been many instances of the killing of a local bill of which we have no knowledge, but we think this is a precedent and, in our opinion, an important precedent.

We doctors have opposed from time to time the passage of such local bills which had the effect of licensing an unqualified doctor. It is next to impossible, however, to defeat the passage of such a bill, unless some tragedy has happened which stimulates an emotional reaction such as took place in the senate. It was an emotion, not reason, which brought about the passage of the bill in the first instance, and the reversal of the action in the second instance.

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#### CONCERNING A SENATE RESOLUTION BY SENATOR LEWIS AND SOME OTHER THINGS

Senator J. Hamilton Lewis addressed the House of Delegates of the American Medical Association during the sessions held in Atlantic City in June.

In July Senator Lewis introduced Senate Joint Resolution No. 188. Under the provisions of this resolution, if adopted, every licensed physician in the United States would become a civil officer of the federal government.

The House of Delegates of the Tennessee State Medical Association met in April.

There has been no opportunity for the House of Delegates to act on this matter.

A number of states have held their meetings since July. Among these is the State of Illinois.

The Council of the Illinois State Medical Association took action upon this and other matters which, in our opinion, are of general interest.

Dr. H. M. Camp, Secretary-Editor, at our request granted permission for these resolutions to appear in this JOURNAL. They are as follows:

#### RESOLUTIONS

*Whereas* Senate Joint Resolution 188, introduced on July 28, 1937, in the senate of the United States by Senator J. Hamilton Lewis, of Illinois, proposes to federalize the medical profession of the nation, making every licensed physician and surgeon a civil officer and subject to prosecution and penalization in the federal courts for special causes enumerated in the resolution; and

*Whereas* such action being clearly a case of class legislation is contrary to the principles of constitutional government; and

*Whereas* the obligation imposed by the joint resolution upon each licensed physician of rendering needed medical service to any and all impoverished who make application to him would inevitably overwhelm practitioners of outstanding reputation, create the necessity of elaborate machinery to determine who would qualify as "impoverished" or in lieu thereof open the way for fraudulent practices, political interference and tend to lower the standards of medical practice; and

*Whereas* the authority reposed by the joint resolution in the Social Security Board would lead almost certainly to fee fixing by governmental agencies and would necessitate a nation-wide accounting and investigating system that would add a tremendous indirect cost to the nation's bill for medical care; and

*Whereas* the penalties imposed by the joint resolution on persons who violate the provisions thereof are so exorbitantly severe as to create a detrimental and inimical psychology in the medical profession; and

*Whereas* the proposed plan would lend



itself easily to political abuse and become a steppingstone to communistic and socialistic government; and

*Whereas* poverty itself is the fundamental cause of most of the ills which the joint resolution seeks to cure and prevent through the superficiality of a superimposed medical service; and

*Whereas* the proposed plan would inevitably become a bitter cup of belated disappointment to thousands of poor and needy people who pin their faith of salvation from the tribulations of life upon this scheme, even as the Townsend mirage and the Huey Long "share the wealth" hallucination became; and

*Whereas* the enforcement of local laws already on the statute books would provide as adequately for the sick-poor as modern facilities and circumstances make practicable; and

*Whereas* the needy now enjoy as adequate medical care as economic limitations and the vagaries of human nature would make possible under the proposed plan;

*Therefore Be It Resolved by the Council of the Illinois State Medical Society in regular session assembled*, That Senate Joint Resolution 188 is inimical to the best public interests, is un-American and unworkable, would result in monumental expenses without yielding compensating benefits, would lead to political corruption and tyranny and ought to be defeated; and

*Be It Further Resolved*, That copies of these resolutions be forwarded to the President of the United States, to each senator and representative in congress from Illinois, and to the secretaries of the medical societies of the several states.

The Illinois State Medical Society is opposed to all forms of lodge contract practice of medicine in which members of the order and their families receive a limited medical service by virtue of their membership. Several county medical societies in Illinois have ruled that any member who accepts a contract to provide medical care to lodge members and their families must first submit the contract to the society or to a special committee for approval.

Although several fraternal orders have been providing medical care to their mem-

bers and families, the Fraternal Order of Eagles has apparently been using this medical care plan more than the others. In one large Illinois county a conference was held during the summer which was attended by representatives of the Eagles and of the county medical society. The chief attorney for the national organization was present and the secretary of the Illinois State Medical Society was an invited guest.

After discussing the subject for some little time, we suggested that it might be advisable to ask the council of the state medical society to rule on the ethical considerations pertaining to this type of medical care. The attorney for the Eagles expressed a desire to appear before the council and stated that he would abide by their ruling. If the council ruled against them he would recommend to the Eagles that medical care to members and their families be eliminated in the future.

The council listened to the attorney then went into executive session. The ruling was unanimous, *that lodge contract practice was unethical and a violation of our state Medical Practice Act* in view of the ruling of the Illinois Supreme Court that corporations cannot legally practice medicine in this state.

In the course of the discussion the information was brought out that in one Illinois county in the downstate area, no less than 14,000 people were entitled to medical care by a lodge doctor by virtue of their membership in the Fraternal Order of Eagles.

It has been the custom of the Eagles to pay \$2.50 per member annually for medical care, excluding obstetrical care, treatment of venereal diseases, and surgery. It is quite obvious that this limited type of medical care many times will give the recipients an erroneous impression of the work of the medical profession, for the care actually given is quite similar to that given by a contract township physician working on a low salary and caring for many indigent patients.

The county medical societies in Illinois have been notified of this ruling of the council, and letters have also been sent to

the fraternal orders which provide medical services to members and their families.

The Illinois State Medical Society will appreciate receiving reports from other state medical societies as to the manner in which such lodge contract practice is handled in their respective states.

Very sincerely yours,

HAROLD M. CAMP, M.D., *Secretary.*

## DEATHS

Dr. F. J. Hackney, Chattanooga; University of the South, Medical Department, Seawanee, 1899; aged 64; died October 29.

Dr. H. M. Cass, Johnson City; Vanderbilt University, Department of Medicine, Nashville, 1900; aged 63; died September 13.

## RESOLUTIONS

### RESOLUTIONS ON THE DEATH OF DR. FRANK B. CLARK

On May 7, 1937, the Jackson County and Five Counties Medical Societies lost one of its most active and valued members in the death of Dr. Frank B. Clark. He was born at North Springs, in Jackson County, Tennessee, fifty-three years ago. Dr. Clark received his literary education and training in the public schools of Jackson County, then entered the Medical Department of the University of Tennessee, where he received his medical degree in 1911. He served his internship at the Protestant Hospital in Nashville and later in 1929 he completed a course in public health at Vanderbilt University. He was married to Miss Mary Elizabeth Smalling in 1912, and to them three children were born. After his marriage he returned to North Springs, where he engaged in the practice of his profession until about 1920, when he moved to Red Boiling Springs, Tennessee, and remained there in the active practice of medicine until about 1929, when he moved to Gainesboro, Tennessee, to become director of the Jackson and Clay County Health

Unit, which later included the counties of Overton, Fentress, and Pickett, and he made a phenomenal success of the same.

He was a member of the Jackson County Medical Society, Tennessee State Medical Association, the Five-County Medical Society, and the Upper Cumberland Medical Society, of which he was a past president. His ability was recognized by all who knew him. He was very active in public health work, and his place will be hard to fill. He was thorough and painstaking in his work, a leader in organized medicine, and held the highest esteem of his fellow members who knew him.

*Whereas* it is the custom and desire of the Jackson County and Five-County Medical Societies to sponsor and to maintain among its members the ties of friendship and regard that strongly exist among men who are drawn together by common interest, sympathetic understanding and close contact, and

*Whereas* it is likewise the custom and desire to honor and commemorate the memories of its members who are taken from us by death, and to perpetuate in our hearts those ties that are thereby broken, yet remain unbroken, and

*Whereas* Dr. Frank B. Clark has been taken from us by untimely death.

*Be It Resolved*, That the Jackson County and Five-County Medical Societies meet to do honor to the memory of Frank B. Clark and in informal testimonials from members who had known him intimately to review those loving attributes that bound him to those who knew him, and to recall a few of the many acts of kindness and generosity that he bestowed on the unfortunate without expectation of material reward, but out of the greatness of his heart and to express the great sorrow that each member feels for himself at the loss of his friend and for the societies at the loss of his loyal support, activity, and wise counsel.

*Be It Further Resolved*, That a copy of these resolutions be filed in the archives of

the Five-County Medical Society, and that a copy be sent to his bereaved family.

Approved:

DR. A. F. RICHARDS, *President*;

DR. J. FRED TERRY, *Secretary*.

R. C. GAW, *Chairman*;

C. E. REEVES,

J. D. QUARLES,

*Memorial Committee.*

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DR. M. L. HUGHES

"When the Angel of the darker drink  
At last shall find you by the river brink,  
And offering his cup—invite your soul  
Forth to your lips to quaff—you shall not  
shrink."

Dr. Hughes did not shrink; he feared not death. He had warnings a less determined man would have heeded; yet he did not. He pushed on with that dogged determination that helped to put him where he was—at the pinnacle of his profession. He did not waste his talents. Driven by ambition, he pushed on till he had made a name for himself in surgery (his master passion) throughout this section.

His loss is great; many will miss him in some hour of need.

In order to succeed in medicine, one must climb uphill all the way to the top. It is no easy road, no binding hours whether they be forty or fifty hours a week will get one there. The price must be paid; there is no alternative. Dr. Hughes paid it at the cost of his life.

Who will say it was not worth the price? Look about you at those he has succored; at the friends left behind—in whose hearts he is loved and mourned—monuments—not of granite—but monuments more important to humanity and the fellowship of the world.

Dr. Hughes is sadly missed at all our medical gatherings. Our hospital has lost a staunch friend; our community a good citizen.

*Therefore Be It Resolved*, This society, realizing its profound loss, has caused this brief tribute to be drawn with the request that it be recorded upon the minutes of the Montgomery County Medical Society; and

*Further Be It Resolved*, That copies be

sent to his wife and sisters, that they may realize the esteem with which he was held in the fraternity of his profession.

MONTGOMERY COUNTY MEDICAL SOCIETY.

F. J. RUNYON,

H. H. EDMONDSON,

E. B. ROSS,

*Committee.*

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DR. M. L. HUGHES

"Strange is it not? That of the myriads  
who

Before us pass'd the door of Darkness  
through,

Not one returns to tell us of the Road,  
Which to discover we must travel too."

In retrospection we look back to the life and work of our departed friend and member with pride and sorrow in our hearts.

Born in 1875, Dr. Hughes was a native of Arrington, Tennessee. He graduated from the University of Nashville and then served an internship at St. Mary's Hospital, Evansville, Indiana. Following this he did postgraduate work at Bellevue Hospital, New York, and then located in Clarksville, Tennessee.

He had no key—no magic "open sesame"—to the goal of his ambition; no fetish with which to woo success. He was dependent upon his own initiative. But he had marvelous energy, ambition, and the determination to overcome. The picture of his life speaks for itself; how well he succeeded we all well know.

In his short span of life he achieved a position in medicine and citizenship commanding the respect and admiration of his fellows. He loved his profession as few men do.

Dr. Hughes was the first president of the Black Patch Medical Society—a position he filled with honor and ability.

Therefore, realizing its great loss, the Black Patch Medical Association has caused this tribute to be drawn with the request that a copy be sent to our state JOURNAL, the further request that copies be sent to his wife and sisters—that they, too, may realize with what emulation and respect he



was held by this body—his friends and co-workers.

# BLACK PATCH MEDICAL ASSOCIATION.

F. J. RUNYON,  
PAUL WILSON,  
W. F. FYKE,  
*Committee.*

## DR. H. M. CASS

In the passing of Dr. Henry M. Cass on September 13, 1937, the Johnson City and Washington County Medical Society has lost one of its oldest and most valued members, and this community one of its highly esteemed and well-beloved citizens.

Dr. Cass was born in Carter County, Tennessee, in 1875, where he received his elementary education. Afterwards he entered Grant University. From here he went to the Medical Department of the University of Louisville. Before completing his medical course he enlisted as a hospital steward in the Spanish-American War. After the war he entered Vanderbilt University at Nashville, from which institution he graduated. He was captain in the medical corps in the World War, being stationed at Ellis Island, New York, thus having the distinction of serving as a medical officer of the United States in two wars.

He first located for practice in Morristown, Tennessee, and was instrumental in establishing the Morristown General Hospital. After twelve years successful practice in Morristown, he came to Johnson City, Tennessee. He became commanding officer of the first American Legion Post. He was prominently identified with Appalachian Hospital, Johnson City, Tennessee, being a member of its original staff. He was a member of the American Medical Association, American College of Surgeons, Tennessee State Medical Association, and the Johnson City and Washington County Medical Societies.

Dr. Cass' wife, who was identified with Johnson City's religious and social life, died January 19, 1937. He is survived by two daughters, Mrs. Ruth Scott, of Johnson City, and Mrs. Sarah Vowell, of Chattanooga, and by three brothers, Col. L. W.

Cass, of Washington, D. C.; Rev. James M. Cass, of Troy, New York; and Capt. E. C. Cass, of Greenville, South Carolina.

Dr. Cass was highly esteemed as a citizen and well beloved by his patients. He was courageous and courteous on all occasions, and through the passing years he established a reputation and character that all could be proud of.

*Therefore Be It Resolved* by the Johnson City and Washington County Medical Society, that we deeply deplore the passing of our friend, brother and fellow member from among us.

That we extend to his bereaved family our sincere sympathy in their sorrow and loss.

*Be It Further Resolved*, That a copy of this statement and these resolutions be sent to his family, a copy be placed in the records of this society, and a copy be sent to the secretary of the State Medical Association with a request for publication.

DR. W. J. MATTHEWS,  
DR. E. T. WEST,  
DR. JOHN L. HANKINS.

## NEWS NOTES AND COMMENTS

Dr. Arthur Dunlap has recently been added to the staff of the McSwain Clinic, Paris, Tennessee. His offices will be in the Clinic Building and will be complete in the very near future.

Drs. Joe T. Smith and J. Gilbert Eblen, Knoxville, announce the removal of offices to 600 West Main Street, where they will be associated in the treatment of infants and children.

Dr. Hamilton V. Gayden announces the opening of offices for the practice of obstetrics and gynecology in suite 234, Doctors Building, Nashville.

Dr. V. H. Griffin announces the opening of offices for the practice of surgery, Franklin and Second Streets, Clarksville.

Drs. Ben H. Marshall and Robert T. Odom announce the opening of the Marshall-Odom Clinic in Fayetteville.

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Dr. W. J. Cameron, of Madisonville, has returned home after doing postgraduate work at Vanderbilt University.

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Dr. Paul A. Paden, of Cleveland, has moved to Camp Beauregard, Louisiana.

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Dr. H. H. Ashbury, of Memphis, is now at the Davis Memorial Hospital, Elkins, West Virginia.

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#### THE COMMONWEALTH FUND

The opening of the North Mississippi Community Hospital at Tupelo, Mississippi, on October 3, gives the northeastern part of this state a modern, fireproof, well-equipped fifty-bed hospital, held in trust for the public, open to all qualified physicians and designed to serve the sick without discrimination.

This is the eighth such hospital to be built with the aid of the Commonwealth Fund of New York, which is now undertaking to provide one new hospital each year for a predominantly rural community which will agree to meet its share of costs and to run the institution in accordance with generally accepted standards. The ninth in the group is now under construction at Ada, Oklahoma, and the tenth has been awarded to the community centering in Provo, Utah.

The fund began this project in 1926 as an experiment in meeting the need of rural communities for better medical and other health services. It was known that adequate hospital facilities were lacking in many rural districts, that recent graduates from medical schools were not entering rural practice in proportion to local needs, and that in spite of substantial progress in some parts of the country, health services in rural areas were not so well developed as those usually found in cities. It was assumed that the presence of well-planned and well-conducted hospitals would to some degree correct this situation, and experience

in half a dozen different states indicates that the hope was justified.

The present plan is to aid in establishing hospitals having a capacity of between twenty-five and fifty beds and easily accessible to a rural community having a population large enough to make good use of such accommodations and capable of meeting operating costs. The hospital may either be a totally new institution or may replace existing facilities which are clearly inadequate. The fund furnishes plans, specifications, and architectural supervision for the construction, and not less than \$200,000 as a contribution toward capital costs. It advises in the organization of the hospital corporation and the medical staff, offers assistance in meeting the administrative problems of the early years and provides a number of fellowships for postgraduate study by members of the medical staff.

Communities needing a fifty-bed hospital are required to raise from \$40,000 to \$60,000 for their share of the capital cost and must provide in addition a site (with service connections) and from \$10,000 to \$15,000 to meet the deficit of the first year's operation. Ownership and administrative responsibility are lodged in a local corporation, organized not for profit, which contracts with the fund to operate the hospital in agreement with specified standards. These standards are such as to guarantee its integrity as a community institution and to justify its approval by the American College of Surgeons.

Hospitals founded under this program are now operating in Murfreesboro, Tennessee; Farmville, Virginia; Glasgow, Kentucky; Farmington, Maine; Wauseon, Ohio; Beloit, Kansas; and Kingsport, Tennessee.

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#### EXAMINATIONS BY THE AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh, Pennsylvania, will be glad to furnish full details to those interested in the work of the above board.

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We are asked to announce the "Golfer's Special" to the San Francisco meeting of

the American Medical Association next June.

Full particulars of the route can be obtained from Bill Burns, executive secretary, 2020 Olds Tower, Lansing, Michigan.

The United States Board of Civil Service Examination announce examinations for Junior Medical Officers (salary \$2,000 per year). Full information can be obtained at any first-class post office.

## PUBLIC HEALTH ACTIVITIES IN TENNESSEE

The Ninth Annual Health Workers' Conference was held in Nashville on October 18 and 19. Among the essayists were the following: Dr. John M. Lee, chairman of the Public Health Council, who presented a paper on "Local Health Responsibility to the Infant and Young Child"; Dr. Frank E. Whitacre, who presented a paper on "Maternal Hygiene"; and Dr. Walter T. McFall, D.D.S., who presented a paper, "Can Dental Caries Be Prevented?" Listed among the discussers were Dr. J. R. Reinberger, of Memphis; Dr. Milton S. Lewis, of Nashville; Dr. Hollis Johnson, of Nashville; Dr. Oren Oliver, of Nashville; and others. Out-of-state guests and speakers included Dr. John Collinson, assistant statistician of the United States Census Bureau; Dr. C. E. Waller representing Surgeon-General Parran of the United States Public Health Service; Dr. Frances Rothert representing the director of the United States Children's Bureau; Dr. John A. Ferrell of the Rockefeller Foundation; Dr. R. A. Vonderlehr of the United States Public Health Service; Dr. H. S. Mustard of New York School of Medicine; Dr. A. T. McCormack, president of the American Public Health Association; and others.

The Liaison Committee, with all members present except Dr. Hiram A. Laws, of Chattanooga, met in Nashville on October 23 with State Commissioner of Public Health Williams and members of the State

Health Department staff to review materials that are available for use in connection with the educational program on syphilis control and to discuss the cooperative program through which the Tennessee Health Department will make available to physicians materials for the treatment of cases of syphilis. This material is now ready for distribution. Each physician in Tennessee will receive shortly a letter outlining the conditions under which this material may be procured. More important still will be the treatment schedules that have been prepared for guidance in the care of uncomplicated cases of syphilis and infants. The schedules of treatment represent the cooperative activities of staff members of the Department of Public Health and the Liaison Committee. Watch for your letter and the valuable enclosures. Read it carefully and study the contents. We of the organized profession occupy a key position in the concerted efforts that are being made to control syphilis. We must assume the responsibility that is ours.

*The record should be kept straight.* The October editorial, "In the Name of Public Welfare," although not specifically stating, referred to the program of the Tennessee Department of Conservation, Division of Restaurant and Hotel Inspection, for the examination of all food handlers. The Department of Public Health was originally requested, but declined to sponsor this act.

The United States Public Health Service desires to begin at once a study of the prevalence of whooping cough in each state. Whooping cough is a reportable disease. Do your duty as a private physician and unofficial health officer—report cases of communicable diseases promptly and completely on the weekly morbidity report card that comes to you regularly. See that your card is mailed promptly each week.

How many children under one year of age have you given diphtheria toxoid to during the past month? Don't forget the



toxoid is available from the Tennessee Health Department or from your local health department without cost whenever you need it. How many days go by that you could not use one or more doses if you had it readily available?

## WOMAN'S AUXILIARY

President-----	Mrs. W. T. Black
Memphis	
President-elect-----	Mrs. H. E. Christenberry
Knoxville	
Press and Publicity-----	Mrs. B. F. Byrd
Nashville	

Industrial hygiene is one of the newer activities of the State Health Department. The program is concerned with the study of conditions pertaining to the general environment in which industrial groups work and includes a study of actual as well as potential health records. The department, in view of the lack of basic information relative to industrial working conditions in Tennessee, is now conducting a rather extensive survey on a state-wide basis for the purpose of procuring a representative sampling of industrial conditions in the state before attempting to formulate or plan a control program. No attempt is now being made to appraise such provisions as medical service, safety measures, protection of workers against harmful dusts, etc. All physicians engaged in the practice of industrial medicine are contacted before the survey is begun in a given area. The following major accomplishments are expected to eventually come out of the program:

1. The creation of a more healthful working environment in hazardous occupations, thereby improving the general health and increasing the present-day earning capacity of certain industrial groups.
2. Increased income for industry through increased efficiency of workers and reduction of insurance rates and compensation claims.
3. Increased income for physicians through the stimulation of interest in better industrial medical service by employer and employee.

The technical phases of the program are under the direction of Dr. Crit Pharris, who has been with the department for a number of years.

From time to time we have expressed, and wish to again express, our appreciation to Dr. H. H. Shoulders, the editor of the JOURNAL, for the space allotted to the publication of articles and news pertaining to the auxiliary. We are grateful indeed that we have the helpful, cordial cooperation of the officers of the State Medical Society, and let's try to function in a way to be of some real service to the profession which we so honor and love. Let's keep ourselves well informed as to the affairs that concern the medical profession. No better way can I suggest than by reading the STATE MEDICAL JOURNAL. Let me urge each county auxiliary to make certain that your state press and publicity chairman promptly receives a full report of the activities of your county in order that we may use most effectively the space allotted to auxiliary news in the JOURNAL.

## RUTHERFORD AND CANNON COUNTIES

Improvement and beautifying of the nurses' home at Rutherford Hospital was adopted as a project by the Woman's Auxiliary to Stones River Academy of Medicine when it met Friday, October 15, with Mrs. T. J. Bratten at Woodbury.

Mrs. W. T. Robison and Mrs. J. A. Scott, who were appointed as committee to investigate the matter at the May meeting, reported on the necessary improvements.

Mrs. M. B. McCrary, president, presided at the meeting which opened the new season.

At the close of the session afternoon refreshments were served.

ANDERSON COUNTY

The Woman's Auxiliary to Anderson County Medical Society started its fall program with a meeting in the home of Mrs.

S. E. Williams, Coal Creek, Tennessee. Mrs. H. D. Hicks, president, presided at the business meeting. This group has been particularly interested in the work of the Woman's Field Army for the control of cancer. Following the meeting delicious refreshments were served by the hostess.

#### SHELBY COUNTY

The first meeting of the new auxiliary year, 1937-1938, of the Woman's Auxiliary to Memphis and Shelby County Medical Society was held October 27. This meeting had been postponed from October 20, the regular meeting date, because of the death of a beloved member of the board, Mrs. Minnie Jelks (Mrs. John L.). The meeting was a memorial for Mrs. Jelks, who was a charter member of the local organization, and a faithful and loyal worker until her death October 22. Mrs. W. T. Braun, president, presided over the business meeting, featured by the reading of a letter written by the national president, Mrs. August S. Kech. Also interesting informative articles were read from *Hygeia*. Plans were made for the year's work, including a Christmas party, honoring the "doctors." The meeting was followed by a Halloween luncheon. This social hour and fine fellowship contribute so much to the joy and success of their monthly meeting.

#### DAVIDSON COUNTY

In conjunction with the program chairman, Mrs. T. F. Frist; the chairman of membership committee, Mrs. Fowler Hollobaugh; and chairman of public relations Committee, Mrs. B. F. Byrd, sponsored an open meeting of the Woman's Auxiliary to Davidson County Medical Society at its first meeting of the fall on Friday, October 1.

The meeting was held at the Centennial Club. Preceding the program luncheon was served and the tables were beautifully decorated with early fall flowers arranged by Mrs. W. F. Fessey and her committee. The honor guests for the day were presidents of the civic clubs of Nashville sponsoring health programs and included Mrs.

James F. Frazer, Centennial Club; Mrs. Julius Marks, of the Council of Jewish Women; Dean Ada Belle Stapleton, of the A. A. U. W.; and Mrs. Matt Murphree, Mrs. W. V. Sandford, Mrs. J. A. Scott, Mrs. M. D. McCrary, members of the State Board from Middle Tennessee; and a group of doctors' wives from Gallatin, guests of Mrs. W. R. Cate, state vice-president of Middle Tennessee. Mrs. O. G. Nelson, president, presided, and introduced Dr. Perry Bromberg, prominent Nashville surgeon, and chairman of the Advisory Council to the local auxiliary, who gave a splendid address on "Modern Medical Trends. Mrs. J. D. Lester, national chairman of *Hygeia*, brought a greeting from the national auxiliary and spoke in her inimitable way of the possibilities for auxiliary service.

### MEDICAL SOCIETIES

#### *Anderson County:*

The Anderson County Medical Society met in its regular monthly meeting Monday night, November 1, Drs. Hall, Huff, Jennings, Butler, Kelly, Cox, Dings, and Dubard being present. A motion picture from Winthrop Chemical Company showing effect of salyrgen in treatment of cardiac edema was shown. A major part of this film was taken at Baptist Memorial Hospital in Memphis.

The society voted unanimously to submit to our representatives in congress proposals for modification or amending laws coming before them in January controlling manufacture, distribution, and sale of drugs and nostrums. A committee composed of Drs. Hall, Huff, and Jennings was chosen to prepare the proposals.

The society expressed hearty approval of the postgraduate obstetrical course just completed by Dr. Frank Whitacre and also the secretary was instructed to ask that a similar course in pediatrics or internal medicine might be instituted as soon as possible. I am sure that the course might receive full support in this section.

HORTON G. DUBARD, *Acting Secretary.*

*Davidson County:*

October 12—"Appendicitis," by Dr. R. A. Barr. Discussed by Dr. L. W. Edwards.

"Case Report: An Unusual Cause of Intestinal Obstruction," by Dr. E. L. Rippy. Discussed by Dr. D. W. Smith.

October 19—"Strangulated Femoral Hernia of Meckel's Diverticulum: A Case with Spontaneous Fecal Fistula Formation," by Dr. Bernard Weinstein. Discussed by Dr. Barney Brooks and Dr. W. D. Haggard.

October 26—"Pseudosinusitis," by Dr. Eugene Orr. Discussed by Dr. Robert Sullivan and Dr. W. G. Kennon.

November 2—"Medical References in Shakespeare," by Dr. W. H. Witt. General discussion.

*Dyer, Lake, and Crockett Counties:*

The Dyer, Lake, and Crockett Counties Medical Society met in regular monthly session. Scientific program:

"Accidents During Labor," Dr. W. P. Watson, Dyersburg.

"Chronic Pneumonia," Dr. Duane Carr, Memphis.

"Treatment of Cardiac Decompensation and Edema," Dr. Lyle Motley, Memphis.

C. L. DENTON, *Secretary*.

*Greene County:*

The regular monthly meeting of the Greene County Medical Society was held at the Andrew Johnson Club House on Tuesday, November 2, at 6:30 P.M.

Dr. Haskell W. Fox presented a paper on "Some Practical Aspects of Gall Bladder Disease and an Analysis of Seventy-Five Consecutive Cases with Operation."

Dr. Hal Henard presented a paper on "Enuresis."

The following members of the society were present: Drs. M. A. Blanton, C. B. Laughlin, C. P. Fox, H. B. Anderson, R. S. Cowles, N. H. Crews, L. E. Dyer, J. B. Bell, H. W. Fox, L. E. Coolidge, R. B. Gibson, W. T. Mathes, I. E. Phillips, and Hal Henard.

The October meeting was cancelled to permit members of the society to attend the East Tennessee Medical Society meeting at Morristown.

I. E. PHILLIPS,  
*Secretary-Treasurer*.

*Hamilton County:*

October 21—"Obstetrics versus Gynecology," by Dr. Dan Williams. "Injection Treatment of Hernias," by Dr. J. C. Brooks.

October 28—"Surgical Consideration of the Gall Bladder," by Dr. W. D. L. Record. "Doctor, I Am Bilious," by Dr. Alex Stewart.

November 4—"Ectopic Pregnancy," by Dr. E. E. Reisman. "Little Things in Medicine," by Dr. S. A. Fowler.

November 11—"Gall Bladder Surgery," by Dr. H. D. Hickey. "Diphtheria, Its Diagnosis and Management," by Dr. J. W. Hocker.

The following papers are scheduled to be read at the meeting of the society on November 18: "Report on Some Operative Cases That Causes One to Become Grey," by Dr. E. R. Campbell.

"The Treatment of Enuresis with Anterior Pituitarylike Substances," by Dr. J. C. Wright.

*Hardin, Lawrence, Lewis, Perry, and Wayne Counties:*

The Five-County Medical Society met in Savannah on October 26. The following papers were read:

"The Treatment of Congestive Heart Failure and Edema in General" with motion pictures, by Dr. Lyle Motley, Memphis.

"Thyroid Disease, with Special Reference to Its Effect on the Heart," by Dr. L. C. Sanders, Memphis.

"Etiology, Pathology, and Rational Treatment for Hemorrhoids," by Dr. Mike W. Holehan, Memphis.

"The Treatment of Malignant Tumors of the Breast," by Dr. Charles W. Ingle, Memphis.

The next meeting will be in Lawrenceburg on November 30. Election of officers for 1938 will be held at that time.

*Knox County:*

October 12—"Extrauterine Pregnancy with a Report of Some Unusual Cases," by Dr. John B. Haskins, Chattanooga.

"Cardiac Arrhythmias: A Clinical Study," by Dr. Philip H. Levinson, Chattanooga.

October 19—"Our Experience with Sul-

(Continued on page 454)



## LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. Geo. C. Williamson, Columbia.  
 Vice-President for West Tennessee—Dr. F. K. West, Rossville.  
 Vice-President for Middle Tennessee—Dr. Jack Witherspoon, Nashville.  
 Vice-President for East Tennessee—Dr. Andrew Smith, Knoxville.  
 Secretary—Editor—Dr. H. H. Shoulders.  
 Assistant Secretary—Editor—Dr. W. M. Hardy.

## TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville.  
 Dr. A. F. Cooper, Goodwyn Institute Building, Memphis.  
 Dr. E. R. Zemp, Walnut Street, Knoxville.  
 Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.  
 Dr. W. L. Williamson, 915 Madison Ave., Memphis.

## COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.  
 Second District—Dr. S. R. Miller, Knoxville.

Third District—Dr. Hiram A. Laws, Jr., Chattanooga.  
 Fourth District—Dr. J. T. Moore, Algood.  
 Fifth District—Dr. John W. Sutton, Petersburg.  
 Sixth District—Dr. H. S. Shoulders, Nashville.  
 Seventh District—Dr. C. D. Walton, Mt. Pleasant.  
 Eighth District—Dr. J. R. Thompson, Jackson.  
 Ninth District—Dr. E. H. Baird, Dyersburg.  
 Tenth District—Dr. W. B. Burns, Memphis.  
 Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

Delegates to the American Medical Association—  
 Dr. E. G. Wood, Knoxville; East Tennessee.  
 Dr. H. H. Shoulders, Nashville; Middle Tennessee.  
 Dr. H. B. Everett, Memphis; West Tennessee.

## Alternates—

Dr. E. T. Newell, Chattanooga; East Tennessee.  
 Dr. J. O. Manier, Nashville; Middle Tennessee.  
 Dr. E. C. Ellett, Memphis; West Tennessee.

## OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	VICE PRESIDENT	SECRETARY-TREASURER
Anderson.....	H. D. Hicks, Clinton.....	J. Sam Taylor, Clinton.....	J. S. Hall, Clinton
Bedford.....	James W. Reed, Belfast.....	James N. Burch, Shelbyville.....	W. B. Barton, Briceville, Assoc. Sec
Blount.....	H. A. Calloway, Maryville.....	G. D. Lequire, Maryville.....	W. H. Avery, Shelbyville
Bradley.....	J. Lake McClary, Cleveland.....	W. C. Stansberry, Cleveland.....	W. C. Crowder, Maryville
Campbell.....	G. B. Brown, Jellico.....	R. W. Lewis, Westbourne.....	C. H. Taylor, Cleveland
Carroll.....	E. W. Hillsman, Trezevant.....	A. R. Collins, Watauga Valley.....	R. J. Buckman, LaFollette
Carter.....	O. F. Agee, Elizabethton.....		J. H. Williams, McKenzie
Chester, Henderson, and Decatur.....	H. T. Pitts, Henderson.....		E. T. Pearson, Elizabethton
Cocke.....	J. E. Hampton, Newport.....	W. C. Ruble, Newport.....	L. C. Smith, Henderson
Cumberland.....	E. W. Mitchell, Crossville.....		Fred M. Valentine, Newport
Davidson.....	Jack Witherspoon, Nashville.....	T. D. McKinney, Nashville.....	V. L. Lewis, Crossville
Dickson.....	L. F. Loggin, Charlotte.....		J. P. Gilbert, Nashville
Dyer, Lake, Crockett.....	J. P. Baird, Dyersburg.....	B. G. Marr, Dyersburg (Dyer) W. L. Sumner, Ridgely (Lake) I. O. McKinney, Friendship (Crockett)	R. P. Beasley, Dickson C. L. Denton, Dyersburg
Fayette and Hardeman.....	L. D. Pore, Grand Junction.....	F. K. West, Rossville.....	Wiley D. Lewis, Bolivar
Fentress.....	C. A. Collins, Wilder.....	A. H. Crouch, Forbus.....	J. P. Sloan, Jamestown
Franklin.....	Alfred Parker Smith, Winchester.....	Geo. E. Bogart, Sherwood.....	John M. Hardy, Sewanee
Gibson.....	H. P. Clemmer, Milan.....	J. W. Allen, Rutherford.....	F. L. Roberts, Trenton
Giles.....	J. G. Waldrop, Lewisburg.....	A. W. Deane, Pulaski.....	T. F. Booth, Pulaski
Greene.....	W. T. Mathes, Greeneville.....	M. A. Blanton, Mosheim.....	I. F. Phillips, Greeneville
Grundy.....	U. B. Bowden, Pelham.....	O. H. Clements, Palmer.....	P. F. Taylor, Monteagle
Hambien.....	W. E. Howell, Morristown.....	R. A. Purvis, Morristown.....	T. I. Henderson, Morristown
Hamilton.....	E. A. Gilbert, Chattanooga.....	A. M. Patterson, Chattanooga.....	J. Marsh Frere, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne.....	Otis Whitlow, Savannah.....	J. V. Hughes, Savannah (Hardin) V. H. Crowder, Lawrenceburg (Lawrence) Paul Wylie, Hohenwald (Lewis) J. W. Frost, Linden (Perry) J. T. Keeton, Clifton (Wayne) John P. Shearon, Gates.....	O. H. Williams, Savannah
Haywood.....	F. P. Hess, Bells.....	R. J. Perry, Springville.....	Roy M. Lanier, Brownsville
Henry.....	A. T. Paschall, Puryear.....	C. V. Stephenson, Centerville.....	R. Graham Fish, Paris
Hickman.....	L. F. Pritchard, Only.....		W. K. Edwards, Centerville
Humphreys.....		C. E. Reeves, Gainesboro.....	W. W. Slayden, Waverly
Jackson.....	J. D. Quarles, Whitleyville.....	A. R. Garrison, Byington.....	Jesse C. Hill, Knoxville
Knox.....	Henry Clay Long, Knoxville.....	J. H. Nunn, Ripley.....	Thos. E. Miller, Ripley
Lauderdale.....	J. R. Lewis, Ripley.....	R. T. Odum, Fayetteville.....	M. F. Brown, Fayetteville
Lincoln.....	R. E. McCown, Fayetteville.....	J. A. Mourfield, Lenoir City.....	J. R. Watkins, Loudon
Loudon.....	Halbert Robinson, Lenoir City.....	P. East, Lafayette.....	J. Y. Freeman, Lafayette
Macon.....	D. D. Howser, Lafayette.....	John E. Powers, Jackson.....	S. M. Herron, Jackson
Madison.....	J. C. Pierce, Mercer.....	C. O. Fowler, Spring Hill.....	D. B. Andrews, Columbia
Maury.....	H. C. Busby, Columbia.....	R. S. Perry, Columbia, R. F. D.	D. F. Seay, Englewood
McMinn.....	Boyd McClary, Etowah.....		H. C. Sanders, Selmer
McNairy.....	John R. Smith, Selmer.....	M. L. Shelby, Clarksville.....	David M. Cowgill, Madisonville
Monroe.....	R. C. Kimbrough, Madisonville.....	F. B. Kimey, Union City.....	J. E. Hunt, Clarksville
Montgomery.....	Paul E. Wilson, Clarksville.....		W. B. Harrison, Union City
Obion.....	M. T. Tipton, Union City.....		A. B. Qualls, Livingston
Overton.....		H. P. Hyde, Copperhill.....	F. O. Geisler, Isabella
Polk.....	A. W. Lewis, Copperhill.....	R. L. Witherington, Cookeville.....	Thurman Shipley, Cookeville
Putnam.....	W. A. Howard, Cookeville.....	L. A. Killefer, Harriman.....	W. W. Hill, Harriman
Roane.....	J. C. Fly, Kingston.....	W. P. Stone, Springfield.....	J. E. Wilkinson, Springfield
Robertson.....	E. W. Adair, Springfield.....	John F. Cason, Murfreesboro.....	J. A. Scott, Murfreesboro
Rutherford.....	T. J. Bratton, Woodbury.....	Pitney Phillips, Robbins.....	Milford Thompson, Onida
Scott.....	D. T. Chambers, Norma.....		H. A. Sauberli, Sevierville
Sevier.....		E. G. Kelly, Memphis.....	A. F. Cooper, Memphis, Secretary
Shelby.....	M. W. Searight, Memphis.....		J. H. Francis, Memphis, Treasurer
Smith.....	J. J. Hobson, Memphis, President Elect.....	W. F. Boze, Carthage.....	Thayer S. Wilson, Gordonsville
Sullivan, Johnson.....	W. B. Dalton, Gordonsville.....	Fred M. Duckwell, Kingsport (Sullivan) J. R. Butler, Mountain City (Johnson)	T. R. Bowers, Bristol
Sullivan, Johnson.....	J. A. Delancy, Bristol.....		
Sumner.....	J. M. Oliver, Portland.....	C. H. Donoho, Portland.....	W. M. Dedman, Gallatin
Tipton.....	A. J. Roby, Covington.....	J. J. Fleming, Atoka.....	H. C. Currie, Covington
Warren.....	John S. Harris, McMinnville.....	E. L. Mooneyham, Rock Island.....	John T. Mason, McMinnville
Washington.....	E. T. Brading, Johnson City.....	G. J. Budd, Johnson City.....	Carroll H. Long, Johnson City
Weakley.....	J. E. Taylor, Dresden.....	T. W. Jones, Martin.....	P. W. Wilson, Dresden
White.....	J. C. Blackenship, Sparta.....	A. A. Bradley, Cookeville, Route 3.....	A. F. Richards, Sparta
Williamson.....	J. Knox Galloway, Franklin.....	W. F. Roth, Jr., Franklin.....	K. S. Howlett, Franklin
Wilson.....	M. H. Wells, Watertown.....	R. N. Buchanan, Jr., Lebanon.....	R. B. Gaston, Lebanon

## COMMITTEES

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The following is a list of the standing committees of the Tennessee State Medical Association provided for in the constitution and by-laws and appointed by the proper authority, together with some special committees appointed under the authority of a resolution by the House of Delegates.

Some of the committees are appointed for a definite period. In such instances the appointment of the committeeman expires with the meeting of the House of Delegates in the year stated opposite his name.

### COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville.  
Dr. A. F. Cooper, Memphis.  
Dr. Frank Harris, Chattanooga.  
Dr. A. H. Lancaster, Knoxville.

### STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgeway.  
Dr. O. N. Bryan, Nashville.  
Dr. C. M. Oberschmidt, Memphis.  
Dr. J. L. Hamilton, Chattanooga.

### HOSPITAL COMMITTEE

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Dr. E. H. Baird, Dyersburg.  
Dr. E. A. Gilbert, Chattanooga.  
Dr. E. G. Wood, Knoxville.  
Dr. H. B. Everett, Memphis.  
Dr. Lee K. Gibson, Johnson City.

### COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. L. W. Edwards, Chairman, Nashville (1939).  
Dr. E. W. Cocke, Memphis (1941).  
Dr. Battle Malone, Memphis (1940).  
Dr. Tom Barry, Knoxville (1938).  
Dr. T. R. Ray, Shelbyville (1942).

### LIAISON COMMITTEE

Dr. W. C. Dixon, Chairman, Nashville (1941).  
Dr. W. P. Wood, Knoxville (1940).  
Dr. Hiram A. Laws, Chattanooga (1939).  
Dr. Tom Mitchell, Memphis (1938).  
Dr. Tom R. Barry, Knoxville (1942).

### COMMITTEE ON INSURANCE

Dr. A. F. Cooper, Chairman, Memphis.  
Dr. C. M. Hamilton, Nashville.  
Dr. S. R. Miller, Knoxville.

### COMMITTEE ON MEDICAL DEFENSE

Dr. S. R. Miller, Chairman, Knoxville.  
Dr. H. B. Everett, Memphis.  
Dr. H. M. Tigert, Nashville.

### ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. B. F. Byrd, Chairman, Nashville.  
Dr. Oliver Hill, Knoxville.  
Dr. Percy Wood, Memphis.

### COMMITTEE ON EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1940).  
Dr. R. B. Wood, Knoxville (1938).  
Dr. D. W. Smith, Nashville (1940).  
Dr. H. B. Gotten, Memphis (1938).  
Dr. W. O. Baird, Henderson (1939).  
Dr. J. M. Lee, Nashville (1939).

### COMMITTEE ON MEMOIRS

Not filled.  
Dr. H. Quigg Fletcher, Chattanooga.  
Dr. E. L. Ellis, Maryville.  
Dr. L. J. Lindsey, Covington.  
Dr. B. T. Nolen, Franklin.

### COMMITTEE ON MATERNAL WELFARE

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Dr. C. W. Friberg, Johnson City.  
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### COMMITTEE ON POSTGRADUATE INSTRUCTION IN OBSTETRICS

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Dr. John M. Lee, Nashville.  
Dr. J. O. Manier, Nashville.  
Dr. W. L. Williamson, Memphis.  
Dr. John B. Youmans, Nashville.

fanilamide in the Treatment of Gonorrhea," by Dr. Tom R. Barry. Discussion led by Dr. G. A. Williamson.

October 26—"Infirmities of the Aged," by Dr. Alvin Weber. Discussed by Drs. Pope, Kyle Copenhaver, and Walter Luttrell.

#### *Monroe County:*

The Monroe County Medical Society had its first fall meeting in Madisonville on Tuesday, October 12.

Dr. Troy Bagwell, of Knoxville, gave a paper on "Fractures" and Dr. David M. Cowgill gave a paper on the "Control of Syphilis."

After the meeting the medical auxiliary served the doctors with a buffet supper in the home of Dr. and Mrs. David M. Cowgill.

DAVID M. COWGILL, M.D., *Secretary*.

#### *Robertson County:*

On the evening of September 21 at the regular meeting of the Robertson County Medical Society a dinner of squirrel stew was given to the society. There were also numerous invited medical guests. About one hundred fifty attended the dinner, most of whom were doctors from Robertson County and the counties bounding it on all sides in Tennessee and Kentucky. This dinner known as "The Squirrel Stew" has been an annual entertainment for fifteen years. Dr. W. B. Dye, of Springfield, was the originator and continues to be chief sponsor. About two weeks before the date of "The Stew" Dr. Dye and certain lay cohorts begin to accumulate the squirrels from the woods in surrounding territory. They are kept in cold storage. By the time of the meeting something over one hundred of these rodents are obtained.

The last stew used 127 squirrels, seven pounds of bacon, six pounds of butter, and five gallons of sweet milk with a generous supply of dumplings. It was served in two forms, one hot, the other less hot with pepper; perhaps it would be better to say hot and hotter, and they all ate much of it.

There was cider, too, plentiful and not too hard.

No form of entertainment in this region

has seemed to call the doctors out as successfully as this squirrel dinner and no occasion has shown more enjoyable good fellowship in the profession.

It was unanimously voted at the last dinner that a committee be appointed to report this meeting to the journals of the American Medical Association and Tennessee Medical Association.

W. A. BRYAN,  
W. F. FYKE,  
PAUL DEWITT,  
*Committee.*

#### *Sullivan-Johnson Counties:*

A meeting of the Sullivan-Johnson County Medical Society was held October 13. Papers read were "Bacillary Dysentery," by Dr. T. B. Yancy, and "Some Observations on the Acute Communicable Diseases," by Dr. F. L. Moore.

#### *Washington County:*

The medical staff of Veterans Administration Facility invited the members of the Washington County Medical Society to attend the annual dinner given by members of the staff at the hospital, November 4. Following dinner there was a demonstration of interesting cases by members of the staff.

## OTHER MEDICAL SOCIETIES

The annual scientific meeting of the Georgia Pediatric Society will be held in Atlanta on Thursday, December 9. For further information address Dr. Roger W. Dickson, 478 Peachtree Street, N. E., Atlanta, Georgia.

#### MEETING OF VANDERBILT MEDICAL SOCIETY OCTOBER 1, 1937

1. Case Report: "Typhoid Abscess of Liver." Dr. George Johnson.

White, male, age 53, admitted to hospital in almost moribund condition, running irregular, high temperature. Past history of malaria, but no typhoid fever. Examination revealed right upper abdominal mass, massive ascites and edema of lower extrem-



ities. Urine contained large amount of pus. N.P.N., Wassermann, G. I. series, and barium enema negative. Stools and complement fixation test negative for ameba. Most probable diagnosis thought to be carcinoma of the liver. Exploratory operation revealed large abscess posterior portion of liver compressing both portal vessels and the vena cava. Abscess completely evacuated. Patient had stormy postoperative course for several days, but was apparently recovering two weeks later. Subsequent to operation, Widal test strongly for B. typhosus; organism was also recovered in pure culture from contents of abscess.

Case Report: "Fracture of Neck of Femur (Bilateral)," Dr. Eugene Regen.

Mrs. M. C., age 77, entered hospital with fracture of neck of left femur sustained that day. Patient showed early heart failure with B.P. of 250 150. Under spinal anesthesia with pantocain, closed reduction of fracture, insertion of Smith-Petersen-Johannson nail. Patient was put in wheel chair following day, discharged from hospital on eighth day, recovered without complications and was weight-bearing after four months. Six months later patient sustained fracture of neck of femur on right side. Previous operation repeated on right side. Patient recovered without complications. This case demonstrates absence of ill effects following these two major injuries treated by this method.

2. "The Effects of Gonadotropic Substances upon the Ovaries, Pituitaries and Adrenals of Animals Receiving Long-Term Injections of Estrin," Drs. J. T. Diaz, Doris Phelps, and John C. Burch. Paper presented by Dr. Diaz.

Long-term injections of estradiol benzoate produced a decrease in the ovarian size with general regression of the germinal and interstitial elements, marked pituitary hypertrophy and slight hypertrophy of adrenals. The addition of Follutein (A.P.L.), whole anterior pituitary extract (maturity factor), and saline suspension of anterior pituitary ground gland or of massive doses of estrin caused further hypertrophy of the pituitary, a slight hypertrophy of the adrenals, and the ovaries responded in a normal physiologic manner. These results in-

dicate that estrin acts directly on the pituitary, causing, after long periods of injection, an exhaustion of the gonadotropic hormone production by the gland. The ovary is not fundamentally damaged by long continued estrin administration, but becomes atrophic because of inadequate stimulation. Paper discussed by Drs. K. E. Mason, G. S. McClellan, and Rucker Cleveland.

3. "Studies on Experimental Hypertension," Drs. Sanford Levy and Alfred Blalock. Paper presented by Dr. Levy.

Hypertension was produced in dogs by constricting the renal arteries by means of silver clamps (Goldblatt). Complete denervation of the kidney by transplantation to the neck did not prevent the rise in blood pressure. Subdiaphragmatic splanchnic nerve section with partial adrenalectomy (Adson-Craig) did not affect the hypertension produced by renal ischemia. Removal of the ischemic kidney or bilateral adrenalectomy resulted in a rapid fall in the blood pressure to or below the normal level. Evidence was presented that the renal blood flow and oxygen consumption are reduced in experimental hypertension, the arteriovenous oxygen difference remaining practically unchanged.

The paper was discussed by Drs. Tinsley R. Harrison, Barney Brooks, Cobb Pilcher, Walter E. Garrey, and John Williams.

## ABSTRACTS OF CURRENT LITERATURE

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

Ventricular Fibrillation in Anesthesia. Guedal and Knoefel, American Journal of Surgery, December, 1936.

Ventricular fibrillation occurs without any premonitory signs or symptoms. It occurs suddenly and either passes away in a minute or death ensues. Respiration ceases at the same time, and unless the pulse is watched closely, this cessation of respiration may be considered as due to other causes. Ventricular fibrillation occurs in the stage of induction and delirium, and in young subjects whose general physiological activity is the greatest. The sudden cessation of the pulse hitherto normal distinguishes it from other causes of sudden death.

To prevent this condition it is suggested that preliminary medication be used that reduces the activity of the sympathetic nervous system. The actual treatment is artificial respiration, oxygen, and heart massage.

## DERMATOLOGY

By E. E. BROWN, M.D.  
Doctors Building, Nashville

**Leaf of Aloe Vera in Treatment of Roentgen Ray Ulcers.** Report of Two Additional Cases. Adolph B. Loveman, M.D., Louisville, Kentucky, *Archives of Dermatology and Syphilology*, October, 1937.

The treatment of roentgen ray and radium ulcers with fresh whole leaf of aloe vera was first described by Collins and Collins in the *American Journal of Roentgenology* in March, 1935. Wright, in *Journal of American Medical Association* in April, 1936, published an additional report on its use. The two cases reported by the author show complete healing of the ulcers following treatment. He calls attention to the fact that the treatment should be continued from three to nine months. The treatment with the leaf proved more efficacious than that of the ointment.

**Sulphur Soap Paste in the Treatment of Scabies.** Roger A. Nolan, M.D., Commander, Medical Corps, United States Navy, San Diego, California, *Archives of Dermatology and Syphilology*, October, 1937.

He describes the method of treatment and prophylaxis in scabies. It consists of eighteen per cent sulphur incorporated in a bland soap paste, and he recommends its application in the form of a lather once daily for three days. This is allowed to dry before putting on clothing. Daily change of underwear is prescribed. One application is sufficient for prophylaxis of an exposed person. He claims less likelihood of producing a sulphur dermatitis or damage to clothing, and also discomfort due to ointment base vehicles.

**Treatment of Lymphangioma Circumscriptum with Sclerosing Solution.** J. L. Grund, M.D., Boston, Massachusetts, *Archives of Dermatology and Syphilology*, October, 1937.

He describes a treatment with a solution of quinine hydrochloride and ethyl carbamate of this form of nevus. He injected one cubic centimeter of the solution into the lesion which was the size of a twenty-five-cent piece. Two weeks after the treatment a small pink spot the size of a five-cent piece indicated the former location of the nevus. Almost a year later only a barely perceptible scar could be noted. This lesion had been present since birth. A year previously it had been treated with radium with no perceptible change.

## INTERNAL MEDICINE

By R. B. WOOD, M.D.  
By D. R. THOMAS, M.D.  
Medical Arts Building, Knoxville

**The Sedimentation Rate in Angina Pectoris and Coronary Thrombosis.** Riseman and Brown, *American Journal of Medical Sciences*, September, 1937.

The authors present a comparison of the sedimentation rate in cardiac infarction and angina pectoris. They determine the sedimentation rate by the method of Rourke and Ernstine, the plasma fibrinogen by the method of Wu, and the serum cholesterol by the method of Ling. All patients had the diagnosis confirmed by observation during an attack, characteristic history, clinical course, and electrocardiographic tracings. Therapy consisted of three weeks' hospital bed rest; and if possible three weeks' additional bed rest at home, or in a nursing home.

Blood was obtained as soon as possible after admission, and once or twice a week until discharge, until the index had become normal, or until further progress toward normal had ceased. Some patients were followed for several months after leaving the hospital.

Controls were run on twenty-one persons, ranging in age from forty-five to seventy years, all of whom were working and apparently healthy. Indices of two-thirds of these were below 0.50, one was greater than 0.70, and the balance between 0.50 and 0.70. Some of these persons were sclerotic, and some had a moderate hypertension. The sedimentation index in these persons was a little above the accepted normal for adults, but the age group corresponded to those suffering from angina pectoris and coronary thrombosis.

Coronary thrombosis was studied in thirty-seven cases, twenty-five men and twelve women, from the fourth to the eighth decade of life. Twenty-seven cases were in the sixth and seventh decades. The sedimentation indices of two patients measured within ten hours after the onset of symptoms were 0.95 and 1.35. In three others measured within twenty-four hours after the onset, the rates were 0.53, 0.55, and 1.20.

During the first few days after the onset of coronary thrombosis the sedimentation rate increased rapidly, eighty-three per cent of the patients reaching indices of over 1.0 before the fourth day. The greatest increase was found between the fourth and the twelfth days. In this period all sedimentation indices were higher than 1.0, and sixty-six per cent were higher than 1.5. After twelve days, the frequency of the low rates increased, and after twenty-one days, indices were less than 1.0 in sixty per cent of the patients. In thirteen cases the rate returned to normal (less than 0.7) between fourteen and twenty-eight days. In nineteen cases the index was still elevated at discharge (twenty-two to thirty-two days after the onset of the disease). The other five cases died

in the hospital during the acute attack—having indices of 1.0 to 1.75 from one to three days before death.

Angina pectoris was studied in fifty-five patients, forty-three men and twelve women, in whom the duration of the disease ranged from three weeks to ten years. These patients were in age range from the fourth to the seventh decade, the majority being in the sixth and seventh. About one-half of these patients showed electrocardiographic evidence of coronary artery disease, an equal number had a hypertension, and about one-third had X-ray evidence of cardiac enlargement.

In twenty-one cases the sedimentation indices were 0.7 or less, in the balance the values ranged between 0.73 and 1.38. The sedimentation index was 0.7 or lower in those patients having symptoms of less than six months' duration. In twenty cases the sedimentation rates were measured again after from one to twenty-six months' intervals. In ten of these cases there were increases of from 0.38 to 1.76 millimeter per minute (fifty to three hundred per cent). Five patients had definite increase in the severity of symptoms within two weeks prior to repeating the test. Later check in these patients showed a decrease in the index toward the former level. In one patient who developed congestive failure there was a decrease in the rate with the onset of the edema. In the other nine cases there was a change of less than 0.3 millimeter per minute on repeated estimations.

In studying the corrected sedimentation rate in one hundred thirteen persons, twenty-one of whom were apparently normal individuals, a moderate elevation (0.73 to 1.38) of the index was found in over one-half of the patients with angina pectoris. An elevated rate was one of the most constant findings in coronary thrombosis, with the fastest rates occurring between the fourth and twelfth days following the onset of symptoms, and in two-thirds of the cases the rate was much greater than that found in angina pectoris.

Those patients discharged with a rapid sedimentation rate showed twice as great a mortality in the first year as those who had a low or normal rate on discharge.

The authors feel that the sedimentation rate reflects the course of the disease, and is an aid in following the progress, but of no aid in the prognosis of the acute attack. They also deem it advisable to continue bed rest until the sedimentation rate is normal or until progress toward normal ceases.

## OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.  
Suite 234 Doctors Building, Nashville

The Effect of Pregnancy on Malignant Tumors. F. R. Smith, *Journal of Obstetrics and Gynecology*, 34: 616, October, 1937.

For years many authors have published isolated reports of cases of malignant tumors complicated

by pregnancy and in most instances the conclusions have been that the pregnancy has had a harmful effect. The picture is clouded however by lack of information. Rarely have authors taken the stand that pregnancy has had a beneficial influence and the lack of a large series.

The author presents fifty-four case reports of patients suffering with malignant tumors who also had one or more pregnancies occurring either simultaneously with the appearance of the tumor or following its treatment. The cases have been grouped according to the location of the tumor, i. e., genital, breast, and nongenital.

The following conclusions are made:

Concerning the patient: Pregnancy is detrimental to and should be prevented in patients having unarrested malignant tumors. Growing malignant tumors may be temporarily retarded by pregnancy with acceleration of the growth after termination of the pregnancy. Pregnant patients with malignant tumors have a better prognosis—if the pregnancy is not terminated; if the pregnancy follows treatment of the tumor rather than occurring simultaneously with it; if more, rather than less than two years have elapsed since tumor therapy; if in the breast and nongenital groups, the patient is not aborted; if the breast and genital tumors are treated before the end of pregnancy, but it is better for the patients with certain nongenital tumors not to be treated until the pregnancy is terminated, especially with melanoma; as to stage of pregnancy, using four months as the dividing line, if the patient is aborted there is some slight advantage in early over late abortion in the nongenital group, a distinct disadvantage in the breast group (all groups fared better if not aborted); as to parity, abortion was especially disastrous to primiparous women, whereas both primiparous and multiparous women did equally well if not aborted.

Concerning the fetus, irradiation of breast and nongenital tumors in pregnant women has no tendency to produce malformed babies. In the genital group irradiation of the pelvic regions will usually produce abortion in the early months of pregnancy. In the latter months of pregnancy carcinoma of the cervix can be irradiated locally without affecting the baby or producing abortion.

The Surgical Treatment of Complete Perineal Tears in the Female. Miller and Brown, *American Journal of Obstetrics and Gynecology*, 34: 196, August, 1937.

The author offers historic high lights in the treatment of third degree tears.

This study is based on 182 chronic complete tears of the perineum treated at the University of Michigan Hospital. These cases are divided into two groups for the purpose of comparison, the first comprising 144 cases operated upon prior to 1931 by various methods and the second comprising thirty-eight patients operated upon since 1931 by what is called the paradoxical operation.

The different methods used are discussed and



well illustrated. Three fundamental principles are essential to successful plastic surgery, namely (1) good blood supply, (2) absence of infection, and (3) avoidance of tension.

The "flap technique" or the paradoxical operation as described has probably more in its favor when considering the contamination present since the site of the operation in every complete tear is potentially contaminated. Not only does the flap provide for the deficit in the anterior rectal wall, but when allowed to fall over the contaminated area it provides an intact protective barrier.

A table reveals much better results in the last group or the group operated upon since 1931. Function was restored in this group in eighty-seven per cent of the thirty-eight patients as compared to seventy-one per cent in the first group.

### OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
Doctors Building, Nashville

One Hundred Cases of Interstitial Keratitis. A. D. Frazer, *American Journal of Ophthalmology*, October, 1937.

The author found injury apparently the exciting factor in development of interstitial keratitis in two to three per cent of the cases. In seventy cases both eyes were affected on first examination. In nine per cent of the cases relapse occurred after treatment was started. The average time required for cases to quiet and the cornea to become almost clear was sixteen weeks. The blood Wassermann reaction was positive in 95.6 per cent of the cases on first examination. In over one hundred cases treated for a year or more fifty-seven per cent were still positive. The cerebrospinal fluid was negative in forty-one cases.

### OTOLOGY, LARYNGOLOGY, RHINOLOGY

By W. W. POTTER, M.D.  
Medical Building, Knoxville

Hearing Before and After Radical Mastoidectomy. Edmund Prince Fowler, M.D., *Archives of Otolaryngology*, October, 1937.

The author makes the plea for avoidance of radical mastoidectomy by early adequate drainage and cites fifty-four cases with audiograms and clinical and roentgen findings.

A radical mastoidectomy is the cleaning out of the mastoid cells plus the lowering of the posterior canal wall, the removal of the malleus, incus and diseased membranes and bone in or about the middle ear, aditus, antrum and eustachian tube, and the cutting of a meatal flap. It is a cleaning

out of the middle ear with the exception of the stapes and a conversion of the whole bony operative field into one open cavity. There are certain indications for this operation such as supuration of long standing or persistent polypoid growths in the external auditory canal or in the middle ear. Symptoms such as vertigo, fistula into the semicircular canals, sudden cessation of the discharge following pain and exacerbations, facial paralysis, etc. The author maintains that, even with all these symptoms, including continuous and foul odor from the discharge in the ear or into the throat from the eustachian tube, and where no operation is done the suppuration very often ceases.

There are no positive indications for a radical mastoidectomy. No radical mastoidectomy is done in the author's clinic without a prior audiometric test.

In the fifty-four cases cited, hearing tests were carefully made before and after operation and, on an average, the operation has not benefited the hearing in either ear, but, on the contrary, it has been followed by an average loss of hearing of about five decibels in the ear operated on, and an average loss of five decibels in the hearing of the better ear.

None of the ears operated on had undergone a simple mastoidectomy at an early stage of the supuration and only six at any stage of the disease. "Herein lies the crux of the problem of the prevention of radical procedures. The answer is early and efficient care and treatment of the primary inflammatory episodes."

Efficient care and treatment means controlling infection in the nose and nasopharynx, and the establishment of efficient drainage from the nasal sinuses and from the middle ear and all its communicating spaces. After a reasonable time, if the otitis persists, an early complete simple or modified simple mastoidectomy.

Repeated roentgenograms are often of great service in determining the progress of the disease and therefore in determining also the advisability of operation.

Attention is called to the fact that in the majority of his cases the nasal sinuses on the side of the mastoidectomy were severely involved.

This condition almost invariably begins in childhood and with the proper early care chronic suppurative otitis media very rarely, if ever, occurs.

The author advocates the simple mastoidectomy properly timed and executed in all cases in which adequate drainage is not otherwise obtainable. This will result in the preservation of hearing and save the patient many serious consequences which are incident to chronic otitis media.

## PEDIATRICS

By JOHN M. LEE, M.D.  
Doctors Building, Nashville

### Certain Significant Aspects of Childhood Tuberculosis.

Ralph M. Tyson, M.D., Philadelphia, *The Journal of American Medical Association*, 109: 753, September 4, 1937.

The early pathology, resistance and immunity to this infection are freely discussed and the importance of early diagnosis and prevention stressed. Among the aids to early diagnosis is a history of contact with a person with active tuberculosis. While a child may gain weight in the early stages of the infection, a failure to gain, or loss in weight should excite suspicion in the absence of an obvious cause. Indefinite symptoms such as irritability, fretfulness, fatigue, and lack of appetite may be noted.

Continued elevation of temperature without physical signs justifies due consideration of tuberculosis as the cause. There is no characteristic temperature curve. After reinfection the lusterless eye, heavy long eyelashes, pouty lips, dry skin and hair, and hypertrichosis are evidences of toxemia of the disease.

In the presence of any of the above circumstances, the intracutaneous tuberculin test should be performed. This test will be positive within three to six weeks after the primary infection is acquired. If this test is positive, serial X-ray studies of the chest should be made, as they are more valuable than a single X-ray. Since sputum may not be secured for examination from infants and small children, tubercle bacillus may be found in the sediment from gastric lavage made the first thing in the morning. Erythema nodosum on the extremities and back of a young child is frequently associated with tuberculosis.

Preventing contact of the child with open cases of the disease is the most effective preventative of tuberculosis. Persons with the disease should not marry. It is desirable that no children be born to tuberculous parents. A tuberculous mother should not nurse her baby, and should avoid close contact with the child. Such a baby might be benefited by receiving B.C.G. vaccine, but the giving of this vaccine routinely to all children is yet a questionable procedure.

While it has not been proven that any certain disease is more likely to be followed by tuberculosis, any acute illness may contribute to reinfection, hence should be prevented if possible. Tuberculin testing of all school children with serial X-ray study of all positive reactors is advocated.

In view of the high mortality rate from this infection at and shortly after adolescence, the importance of proper habits, adequate rest, the

optimum of nutrition, and avoiding contact of active cases at this age is stressed.

## ROENTGENOLOGY

By FRANKLIN B. BOGART, M.D.  
Medical Arts Building, Chattanooga

### Roentgen Therapy of Chronic Sinusitis in Children.

R. R. Rathbone, *American Journal of Roentgenology and Radium Therapy*, Vol. 38, No. 1, p. 102, July, 1937.

#### DIAGNOSIS

Difficulty of diagnosis stressed particularly in infants and small children. The association with chest disease, especially asthmatic bronchitis and peribronchial infiltration, is pointed out. The frequent occurrence of sinus infection as the underlying cause of otitis media and mastoiditis is referred to and the statement is made that all cases of recurrent otitis and mastoiditis in small children should call for careful examination of the sinuses. All X-ray examination of sinuses in children should include a true lateral film to determine the size of the adenoids in the nasopharynx, since the recognition of the presence of enlarged adenoids and their complete removal is essential if sinus disease is to be cured.

#### TYPES OF CASES SUITABLE FOR ROENTGEN THERAPY

Roentgen therapy is not a panacea for sinus disease. In selected cases it gives good results. It is a simple safe treatment which can be used in infants as well as children.

The author does not treat acute sinus disease with roentgen ray. He does not treat cases with frank pus in the nose unless the roentgen and clinical examination shows diffuse lymphoid hyperplasia throughout the nose and throat. The ideal type of case for roentgen therapy is the child with diffuse lymphoid hyperplasia throughout the nose and throat with a watery or mucous nasal discharge, a history of frequent colds, a chronic cough, and where the roentgenogram demonstrates hyperplasia of the mucosa of the antra or ethmoids. Another type of case that is especially benefited is the infant or child who has frequent colds and with every cold develops either an otitis media or cervical adenopathy.

Roentgen therapy is indicated during either acute or chronic stages of otitis media. Children under three years of age can usually be carried along and greatly improved until they are old enough for a tonsillectomy and adenoidectomy. Roentgen therapy will not replace this operation, but in older children roentgen therapy should precede operation, as cases of sinus disease that also

have enlarged tonsils and adenoids are often worse following operation.

#### TECHNIQUE

Quality of irradiation is of no significance provided some filtration is used: 125 kv., twelve millimeters distance, five millimeters aluminum filter and a dose of 120 r measured in air or 220 kv., twenty ma., fifty centimeters distance, 0.5 millimeters copper filter and a dose of 100 r are the two techniques the author has used. Three overlapping areas of ten by ten to seven by seven centimeters are used, one anterior and two lateral. The eyes and eyebrows are protected by one millimeter of lead shields held in place by adhesive. A total of six treatments are given over a two weeks' period. Only one of the above outlined areas are treated each time so that each area receives only two treatments during the two weeks' period. In children with a cough 100 r is applied over the chest once or twice at the end of the sinus treatment.

#### CONCLUSION

Sinus disease in children is usually masked by complications such as severe coughs, otitis media, cervical adenitis or asthma.

Seventy children with sinus disease have been followed from one to three and a half years with roentgen examinations before and after roentgen treatment. In this group fifty-seven per cent were cured, twenty-eight per cent were improved, and fifteen per cent were not benefited by the treatment.

A high percentage of cures may be expected if only the recommended types of sinus disease are treated by roentgen therapy.

### **SURGERY—GENERAL AND ABDOMINAL**

By **BATTLE MALONE, II, M.D.**  
1400 Monroe Avenue, Memphis

The Differential Diagnosis of Rectal Bleeding. Everett D. Kiefer, M.D., Surgical Clinics of North America, June, 1937.

The complaint of visible blood in the stools demands a thorough examination of the rectum and colon by means of digital palpation, proctoscopy, and roentgen ray studies. Care should be exerted in the digital examination to avoid pain. Tumors, irregularities, strictures, rigidity, and thickening of the rectal wall are searched for by the examining finger which should be well lubricated.

Anesthesia is not necessary for anoscopy and sigmoidoscopy except where there are painful lesions at the anus. Preliminary enemas are best omitted. The entire circumference of the anus should be inspected with the anoscope. The sig-

midoscope is carefully introduced and the obturator removed as soon as the instrument has passed the sphincters. Further introduction is made under direct vision. Inflation of the rectum facilitates vision and introduction of the sigmoidoscope. This method of examination is more reliable in the diagnosis of lesions at or below the rectosigmoid juncture. Above this, the barium enema is the most important method of examination. This should be done with fluoroscopic observation as well as with films taken before and after evacuation of the enema.

Carcinoma is the most important cause of rectal bleeding. The symptomatology is variable and includes changes in bowel habit, diarrhea, constipation, tenesmus, rectal pain, and loss of weight. Blood in the stools is frequently the earliest symptom. The appearance of carcinoma seen through the proctoscope is rather characteristic in appearance and occurs as a single lesion in the form of an excavating ulcer or a proliferating mass with a necrotic surface. The surrounding mucosa is normal. If the lesion is above the rectum, the blood is darker and more thoroughly mixed with the stool. Other symptoms are usually those of partial obstruction.

Polypoid adenomas usually give symptoms of bleeding and diarrhea. Careful rectal examination, together with barium enemas and air enemas, make the diagnosis evident. These frequently become malignant and should be removed and microscopic sections made.

In chronic ulcerative colitis, there is usually diarrhea with pus, mucus, and blood in the stools. Tenesmus and incontinence are not uncommon. General symptoms such as fever, vomiting, etc., may or may not be present. Rectal strictures may be present. Proctoscopic examination reveals extensive shaggy ulcerations and necrosis of the mucosa. There is hyperemia and swelling of the mucous membrane. No normal mucosa is seen. Barium enema shows absence of haustrations and a failure of the colon to contract after evacuation of the barium.

Amebic dysentery may be differentiated by repeated stool examination with the demonstration of amebae. The ulcers of amebic dysentery are more discrete, deeper, and less numerous than those of chronic ulcerative colitis. The X-ray findings are of little value.

Tuberculous ulceration is very rare except where there are pulmonary lesions also. It resembles amebic ulceration. Biopsy with section will usually make the diagnosis.

Hemorrhoids are the most frequent cause of rectal bleeding. These may be found by inspection, digital, and anoscopic examinations. Other lesions



however must not be ruled out even when hemorrhoids are present. Anal fissures may cause bleeding and can be found by digital and anoscopic examination.

Other less common causes including prolapse, food poisoning, bacillary dysentery, volvulus, acute intussusception, mercury poisoning, foreign bodies, and hemorrhagic blood diseases must be considered.

### SYPHILOLOGY

By E. G. CLARK, M.D.  
Tennessee Department of Public Health  
Nashville

**A Clinical Evaluation of Oral Bismuth (Bismutate) Therapy in Early Infectious Syphilis in the Female.**  
Carmen C. Thomas, *American Journal of Gonorrhea and Venereal Diseases*, 21: 513, September, 1937.

For a number of years studies have been made to prove the efficiency of bismuth given by mouth in the treatment of syphilis, particularly as regards the disappearance of spirochetes from lesions and as regards the change in the serological reaction.

The author reviews some of these studies which for the most part have been made on animals. No clinical studies done in this country using bismutate in human syphilis were reviewed by the author. The work on rabbits was not conclusive. Mulzer and Serefis studied the action in human beings and found that bismuth chloride resists the action of all gastrointestinal secretions, whether acid, alkaline, or neutral; they found that by giving bismutate equivalent to 0.8 grams metallic bismuth every other day for sixty days orally to forty-nine patients, there were no objectionable by-effects, the lesions disappeared, the symptoms disappeared, the blood tests were reversed in most cases. "Of thirteen cases of primary syphilis, all showed prompt healing of lesions and reversal of serologic tests. Twenty-four cases of secondary syphilis were all clinically healed and serologic reactions remained negative in five cases. They also report striking results in six tertiary and six neurosyphilis cases."

The author studied fourteen cases of early syphilis in colored females, showing lesions containing spirochetes. Bismutate, in the dosage of 0.6 gram metallic bismuth per day, was given to some, and twice the amount was given to others. After varying intervals when no change in the lesions was noted, bismuth salicylate or neoarsphenamine was given and the time of disappearance of spirochetes was noted. The author concluded the following:

"1. We were unable to confirm the favorable report of Mulzer and Serefis on the efficiency of oral bismuth administration in the form bismutate, as determined by sterilization and healing of early infectious syphilitic lesions, or effect on serologic tests.

"2. The marked superiority even of the conventional intramuscular bismuth therapy over peroral administration and the inadequacy of bismutate from a public health standpoint were indicated in a group of four patients treated with bismuth salicylate intramuscularly whose lesions proceeded to clinical regression in time interval of from seven to thirteen days. Two of these patients had been refractory to bismutate for twenty-one and twenty-six days respectively. Neoarsphenamine within seventy-two hours produced sterilization of the lesions of eight patients who had been refractory to bismutate.

"3. The promotion and sale of oral bismuth preparations in the treatment of syphilis should be curbed until more convincing proof of their effectiveness is produced."

### UROLOGY

By TOM R. BARRY, M.D., F.A.C.S.  
By G. A. WILLIAMSON, JR., M.D.  
Medical Building, Knoxville

**The Incidence and Prevention of Renal and Vesical Calculi in the Fracture and Traumatic Group.** E. J. McCague, M.D., *Journal of Surgery*, October, 1937.

The formation of urinary calculi in cases of fracture or osteomyelitis of the spine, bony pelvis, or femurs is a practical clinical problem of major importance. The author presents a summary of the literature, and states that actual statistical incidence is difficult to establish. From careful examination of the literature, however, it is a well-known fact that stone formation is common in this group of cases.

The following outline for prevention is given. First, when a case of this character is admitted, the surgeon should immediately request urological consultation. Second, the potential stone formers are classed as follows: (a) fracture of the spine with or without cord damage; (b) fracture of the bony pelvis with or without rupture of the bladder or urethra; (c) fracture of the femur; (d) osteomyelitis. Third, careful examination of the urine should be made to establish presence or absence of infection. Fourth, urological X-ray examination to establish the presence or absence of calculi. Fifth, chemical studies for serum calcium and phosphorous. Sixth, acid ash diet, with

urinary acidifiers to maintain a pH of 5.0 to 5.5 of the urine. No alkalis are permitted. Seventh, prevention of urinary stasis in the immobilized patient by frequent changes in his position, consistent with the treatment in the individual case. Eighth, fluids are forced up to three liters. Ninth, if evidence of urinary tract infection occurs, the

bacteriology of the infection is established, and specific measures instituted at once.

The author has employed this plan of prevention in thirty-three cases with good results. He does not state that it will prevent calculi formation in all of these cases, however, he does feel that it is an important prophylactic measure.

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### THE SYPHILIS CAMPAIGN

Statement by the Liaison Committee Concerning the Syphilis Campaign

AT THE KNOXVILLE meeting of the state society the House of Delegates instructed the Liaison Committee to prepare a plan for the treatment of syphilis to be recommended to the members of the profession.

After considerable correspondence, a meeting of the committee in Nashville, and consultation with experts in the treatment of syphilis, such a plan has been prepared.

It is based on the findings of the cooperative clinical group, composed of the leading syphilologists in America.

It stresses the importance of continuous uninterrupted treatment for a year and a half.

It is believed that the Wassermann reaction should be used in the diagnosis of the disease, and after treatment is finished at intervals to check the patient's condition, but is best not used during treatment, as a negative reaction means to the patient that he is well, and probably encourages him to stop treatment.

A copy of this treatment form has been sent to every member of the society, and it is hoped that they will give it sympathetic consideration and in so far as possible adopt it as a routine in treating all early cases of syphilis.

Dr. Williams, state health commissioner, has cooperated in preparing the form, and his department has printed and distributed it.

It will be seen by the letter accompany-

ing the form that drugs are available without cost to be used in the treatment of certain classes of cases. It is hoped that in cooperation with the Department of Health, facilities may be made available in various parts of the state for the early diagnosis of syphilis by dark field examination of material from primary lesions.

The Department of Health has obtained two picture reels on the syphilis problem that are interesting and instructive. These are available for public meetings and medical meetings. The Liaison Committee plans to ask each county society to devote one meeting to a discussion of syphilis, at which time, if it is desired, these films can be shown.

Recent publicity with regard to syphilis has aroused a great public interest. This interest will inevitably lead to positive steps toward eradicating the disease.

The medical profession must decide whether it will lead or follow in this movement.

It is our duty to take the lead, for we are the only group who know fully the ravages of the disease and the methods for its control.

#### The Communication from the Department of Health

November 22, 1937.

Dear Doctor:

Funds are now available through the Department of Public Health for providing treatment material for cases of syphilis.



The amount available has been prorated by counties on a population basis, under the following condition as long as funds are available:

1. A portion will be available for furnishing material to physicians *upon request* and *without cost* for the treatment of all *pre-natal* and *congenital* syphilitics. Additional material should be requested when the initial supply for an individual case is used up.

2. A portion will be available for furnishing material to physicians for treatment of all cases of the indigent and semi-indigent groups; provided, one-half the cost of the treatment material for the individual case accompanies the request. The initial request and remittance should be sufficient to procure sufficient material for at least six months' treatment. Ordinarily this would be about \$1.50 per patient. Your county court and other local agencies should be encouraged to provide funds for providing treatment material for this group. If you need twenty ampules of 0.6 gram neoarsphenamine to begin treatment of a case then a remittance of ten by fifteen cents, or \$1.50, should accompany your *request*. *Make remittance payable* to the Tennessee Department of Public Health.

Prices on arsenicals are as follows:

Drug	Size Ampule	Price
Neoarsphenamine	----0.3 gram	14½c each
Neoarsphenamine	----0.6 gram	15c each
Sulpharsphenamine	----0.1 gram	11c each
Sulpharsphenamine	----0.3 gram	12½c each

Bismuth subsalicylate (in oil) in fifteen and thirty cubic centimeters ampules will be made available without cost.

The following policies govern distribution and are prerequisite to the filling of all requests:

1. The case must be officially reported before material can be sent out. The weekly morbidity report card which is sent you each week should be used in reporting all cases of syphilis as well as other communicable diseases that come to your attention. In prenatal cases, give the length of pregnancy.

2. Remittance *must* accompany request for material for treatment of all cases except the prenatal and congenital group.

3. An accurate and complete record of treatments should be kept on each case. Record forms will be furnished by the state or local health department as indicated. A record form for each patient will be included in each shipment of drugs.

4. Unless otherwise specifically indicated, treatment should be continued according to the enclosed "Schedule for Treatment of Uncomplicated Case."

5. Infectious cases and cases that miss two consecutive treatment periods prior to having had sufficient treatment to prevent an infectious relapse should be reported to the local health officer just as you report diphtheria, scarlet fever, etc. At least *six months' continuous treatment* is necessary before there is reasonable assurance that an infectious relapse will not occur.

6. *At least one year of consistent regular treatment is absolutely necessary before any case can be cured.* Discuss the treatment schedule with your patients so they will understand what *must* be done before you start the course of treatment.

7. *Treat your case by the calendar.*

If you practice in a county or city served by a full-time health department, please communicate directly with your local full-time health officer regarding material needed, as your local health department will be the local distributing center for all material in your area.

If you practice in an area *without full-time* health service, please communicate directly with the Tennessee Department of Public Health at Nashville.

We are delighted to have this opportunity of cooperating with you. Whether you request drugs for the treatment of cases or not, *please report all cases of communicable diseases* including syphilis on your weekly report card as soon as they come to your attention.

Very truly yours,

W. C. WILLIAMS,  
Commissioner of Public Health.

# SCHEDULE OF TREATMENT FOR UNCOMPLICATED SYPHILIS

THE SUCCESSFUL TREATMENT OF SYPHILIS DEPENDS  
ON CONSTANT CONTINUOUS TREATMENT  
BY CALENDAR

Week	Treatment
1 Neoarsphenamine	0.6 gram
2 "	0.6 gram
3 "	0.6 gram
4 "	0.6 gram
5 "	0.6 gram
6 "	0.6 gram
7 "	0.6 gram
8 "	0.6 gram
9 "	0.6 gram
10 "	0.6 gram
11 Bismuth	0.13 gram
12 "	0.13 gram
13 "	0.13 gram
14 "	0.13 gram
15 "	0.13 gram
16 "	0.13 gram
17 Neoarsphenamine	0.6 gram
18 "	0.6 gram
19 "	0.6 gram
20 "	0.6 gram
21 "	0.6 gram
22 "	0.6 gram
23 "	0.6 gram
24 "	0.6 gram
25 "	0.6 gram
26 "	0.6 gram
27 Bismuth	0.13 gram
28 "	0.13 gram
29 "	0.13 gram
30 "	0.13 gram
31 "	0.13 gram
32 "	0.13 gram
33 "	0.13 gram
34 "	0.13 gram
35 Neoarsphenamine	0.6 gram
36 "	0.6 gram
37 "	0.6 gram
38 "	0.6 gram
39 "	0.6 gram
40 "	0.6 gram
41 "	0.6 gram
42 "	0.6 gram
43 "	0.6 gram
44 "	0.6 gram
45 Bismuth	0.13 gram
46 "	0.13 gram
47 "	0.13 gram
48 "	0.13 gram
49 "	0.13 gram
50 "	0.13 gram
51 "	0.13 gram
52*	0.13 gram
53 "	0.13 gram
54 "	0.13 gram

55 Neoarsphenamine	0.6 gram
56 "	0.6 gram
57 "	0.6 gram
58 "	0.6 gram
59 "	0.6 gram
60 "	0.6 gram
61 Bismuth	0.13 gram
62 "	0.13 gram
63 "	0.13 gram
64 "	0.13 gram
65 "	0.13 gram
66 "	0.13 gram
67 "	0.13 gram
68 "	0.13 gram
69 "	0.13 gram
70 "	0.13 gram
71 "	0.13 gram
72 "	0.13 gram

*Note.*—(1) Dosage for first three injections on basis of 0.1 gram of neoarsphenamine for each twenty-five pounds of body weight to maximum of 0.6 gram.

(2) If infection is of more than three years' duration, give three weekly doses of bismuth before proceeding with neoarsphenamine.

(3) If lesions are present, give first three injections at five-day intervals.

(4) 0.13 gram is the usual dosage of insoluble bismuth advocated (two grains), often referred to as 0.2 gram for convenience sake. Most preparations have 0.13 gram to each cubic centimeter. Mercury may be substituted for bismuth, preferably in the form of inunctions.

\*At the end of the first year patients with seronegative primary may be placed on probation if blood has not been positive and if spinal fluid and physical examination are negative.

At the end of seventy-two weeks—probation if spinal fluid, physical examination, and blood are negative. If blood is positive and other tests are negative, give three months' rest followed by twelve weekly injections of bismuth; rest three months and give another twelve weeks of bismuth.

## TREATMENT SUGGESTIONS IN CASES COMPLICATED BY

### 1. *Jaundice*

(1) In all cases occurring during course of therapy *discontinue arsphenamine*. Consider possibilities (a) Herxheimer, (b) hepato recidive, (c) arsenical hepatitis, (d) syphilis of liver, tertiary, (e) hepatitis, luetic, secondary, (f) catarrhal jaundice.

(2) Give *no arsenical* for six months. Then begin with *small* amounts of different arsenical, increasing *slow-*

- ly.* See patient weekly and follow icteric index at weekly intervals until maximum dose of drug is given.
- (3) Continue bismuth only in *acute* cases (bismuth has been shown to be somewhat hepatotoxic). Bismuth may be started when jaundice has completely disappeared.
  - (4) Hospitalize if very ill. Plan of treatment: high carbohydrate and low fat diet. Magnesium sulphate daily in small doses—force fluids.
2. *Cardiovascular Disease*
- (1) *Cardiac insufficiency* — decompensated. No therapy other than potassium iodide until well compensated for several weeks.
  - (2) *Aortitis, early, without myocardial insufficiency.* Treatment may be instituted with the hope of arresting the process.  
Bismuth and potassium iodide for six to eight weeks, and then if well tolerated *small* cautious doses of arsenicals. No arsphenamine other than neoarsphenamine with maximum dose 0.4 gram.
  - (3) In definitely proved *aneurysm, coronary disease, and aortic insufficiency no arsenicals* are to be given.
3. *Gastrointestinal reactions* (nausea, vomiting, etc.)
- (1) Light breakfast and no food afterwards on day of treatment.
  - (2) Laxative on preceding night.
  - (3) Large dose of glucose, candy, etc., two hours before treatment.
  - (4) Soda bicarbonate two and four hours before treatment.
  - (5) Decrease dosage to tolerated dose; maintain for several weeks then increase again.
  - (6) Change to sulpharsphenamine 0.4 gram intramuscularly, or silver arsphenamine 0.3 gram intravenously.
4. *Neuro-Recurrences* — Occur four to twenty weeks after cessation of treatment; meningeal signs, cranial nerve signs—may be manifest by anything from persistent headache to complete paralysis. Be sure to differentiate arsphenamine encephalitis. Treat vigorously, continuously by the attached plan.
5. *Nitritoid Crisis*
- (1) Adrenalin immediately.
  - (2) Ephedrine 0.03 gram in morning and twenty minutes before treatment.
  - (3) Give drug slowly with small then gradually increasing doses.
  - (4) Change to other arsphenamine.
6. *Senility*  
Latent syphilis without any signs or symptoms (Wassermann reaction positive). If to be treated, do so very conservatively, using bismuth and potassium iodide. Later, small “tonic” doses of neoarsphenamine may be given.
7. *Dermatitis*  
Stop all treatment.
- SCHEDULE OF ANTISYPHILITIC TREATMENT OF INFANTS AND YOUNG CHILDREN
- From Birth to Three Years of Age (or after if veins cannot be entered)*
- Sulpharsphenamine.* — Give intramuscularly twenty milligrams (0.02 grams) per kilogram of body weight (kilogram equals 2.2 pounds) at weekly intervals. The maximum dose should not be over 0.3 gram. Use one-half of required dose on first injection, three-fourths the required dose on the second injection, and thereafter a full required dose at weekly intervals. The length of courses should follow those of adult schedule. Between courses of sulpharsphenamine, heavy metals should be given as described below.
- Stovarsol.*—There is considerable danger of abscess formation in infants by using sulpharsphenamine. Stovarsol may be used in infants, but gives dangerous reactions in older children. Give stovarsol in dosage of twenty milligrams (0.02 gram) per kilogram (2.2 pounds) of body weight daily by mouth in water or milk. This represents the maximum daily dose in courses of ten weeks separated by four-week intervals of bismuth or mercury. The maximum dose should not exceed 0.3 gram.
- First week give one-fourth to one-fifth of maximum dose daily. Second week give one-half of maximum dose daily. Third week give three-fourths of maximum dose



daily. Fourth to tenth week give maximum dose daily.

When serological tests become and remain negative, two additional courses of stovarsol should be given. In event of continuous positive serological tests, treat for at least two years or longer if spinal fluid is positive.

*Danger of Stovarsol.*—The signs and symptoms of stovarsol poisoning are *diarrhea, rash, vomiting, fever, bloody urine*, etc. If any of these appear, stop treatment immediately and try again after one month. Children receiving stovarsol should be seen at least weekly for first four weeks and every two weeks thereafter.

*Heavy Metals.*—Bismuth subsalicylate in oil is advised. Bismuth is given intramuscularly in doses from one-third to full adult dose, depending on the age and size of the child. For small infants mercurial inunctions are suggested.

*Mild mercurial ointment* U. S. P. is used by rubbing once daily a piece the size of a

pea into the skin until the ointment disappears. A different location on the body should be used at each application. The ointment should be applied after bathing.

*From Three to Six Years of Age.*—Use the schedule for treatment of adults with *neoarsphenamine* if veins can be entered. Dosage of *neoarsphenamine* should be fifteen milligrams (.015 gram) per kilogram (2.2 pounds) of body weight. One-half the computed dose should be given on the first intravenous injection. Maximum dose of *neoarsphenamine* should not exceed 0.3 gram.

If the veins cannot be entered, *sulpharsphenamine* intramuscularly or *stovarsol* by mouth may be given in dosage as is described above. Between courses of the arsenical heavy metals should be administered as above.

*From Seven to Fourteen Years of Age.*—Use adult schedule of treatment if possible, varying the dosage of *neoarsphenamine* according to weight of patient.

## ANORECTAL EXAMINATION AND CERTAIN ANAL DISEASES: CRYPTITIS, PAPILLITIS, FISSURE, AND FISTULA\*

LOUIS A. BUIE, M.D., Section on Proctology, The Mayo Clinic, Rochester, Minnesota

THE UNPLEASANTNESS of a task is hardly to be considered an excuse for its avoidance or an indication that it has no value. To some physicians it has been a matter for boasting that they cannot be bothered with "rectal cases"; to many more it has been a matter of regret. A physician should encourage those afflicted with rectal disorders to present themselves for examination as early as possible and teach them to be unashamed. They should be told of the painlessness of early rectal carcinoma and of the grave significance of the passage of blood before, during, or after defecation. Only in this manner will it be possible to lessen the period of uncertainty which is so costly and which many patients will avoid if they know how. They neglect their condition because they do not realize its significance and because they possess a sense of modesty which should not be considered false. It is a characteristic which is possessed by many who have come under the influence of social refinement. They often fear medical attention, not only if an operation is required, but even during an examination. They have learned fear from those who have had similar conditions and have sought aid, and the consultant should not wonder that they turn to the popular cures advertised in journals, circulars, and newspapers. They see a refuge in the glowing descriptions of the various "painless pile dissolvents" and cures of fissures, fistulas, papillae, prolapse, and pockets, without the knife. Theirs is a normal response when they embrace such measures, and the physician should not be dismayed at the popularity of those who are the authors of such schemes. As long as members of the medical profession are willing to pass lightly over rectal problems, they may expect those who employ business methods in medical practices to flourish.

Whenever a patient with rectal trouble consults these so-called charlatans, the utmost consideration is given to the problem presented. The experience of many such practitioners is broad and their skill in conducting examinations and administering treatment is sometimes better than that of many who shun them. Therefore, as physicians review the history of medical practices and observe the type of rectal surgery that has been approved by legitimate surgeons; when they consider the lack of equipment for diagnosis and treatment of anal and rectal disease which many of their colleagues possess; when they consider the attitude of those at the head of hospital and teaching institutions; and when they realize the horror of "pile," fissure, and fistula operations, which has been passed on from one generation of laymen to another, the evils should be recognized and knowledge gained which should reveal the remedy.

This remedy will come only through a proper alteration in the present attitude of the representative men in the medical profession. Those who have ability must interest themselves sufficiently in this type of work. Some should do the work as a part of their general practice or as a part of their duties as internists and surgeons; some should go a step further and carry on this work more intensively; while others should limit their work to proctology and proceed not only to care for patients, but to seek to increase the facilities for the teaching of proctology both in undergraduate and in postgraduate institutions. Most of all, it is necessary that those who are at the head of hospitals and teaching institutions give opportunity to those who are interested in the work and are ambitious to help with its advancement.

Usually it is some type of discomfort which brings the patient to the physician's office. Many times a patient who finds that something is wrong with his habits will pass the matter by, try to make the best of

\* Read before the meeting of the Tennessee State Medical Association, Knoxville, Tennessee, April 15, 1937.

it, and wait to see what will happen. He may make use of some home remedy or he may see in his symptoms a duplication of the experience of some friend to whom he has recited his difficulties, and the patient may try the same treatment. However, when pain develops and he is unable to obtain relief from it, he will usually consult a physician. It is in this particular that the proctologist is confronted by the most tragic circumstance. Owing to the peculiarity of the nerve supply of the rectum, malignant lesions involving it never produce pain early unless they extend low enough to involve the tissues of the anus as well. Therefore, blood is usually the first sign which attracts the attention of the patient when he has a rectal carcinoma. All lesions of an inflammatory or ulcerous nature which involve the anus produce a marked degree of pain and the simplest abrasions about the anal margins, anal fissures and abscesses are characterized by discomfort. Anal spasm owing to infection admitted through the anal crypts, edematous papillae, and thrombosed hemorrhoids produce pain, and it is not often that patients will delay their visit to the physician under such circumstances.

Bleeding is a common sign of rectal trouble, and one which should always be regarded with grave concern. Few people will consult a physician immediately on seeing a stain of blood on the toilet paper. If there is no discomfort, it is doubtful if they will seek examinations until the bleeding has appeared over a long period or has assumed alarming proportions. A malignant lesion in the lower part of the colon will not bleed until it has become ulcerous and this often occurs late in the course of its development.

Patients frequently will present themselves with a complaint of hemorrhoids; some have them, but many have not. Both types arrive at their conclusion because of the presence of blood and the physician is unpardonable who prescribes laxatives, ointments, or suppositories without first making the proper investigation. Even if the patient is examined superficially and it is found that he has hemorrhoids, and even if these hemorrhoids are found to exist

in profusion, he should not be sent away until it has been determined, if possible, if a more serious lesion is lurking in the upper recesses of the rectum or lower part of the sigmoid. The obvious explanation must not be accepted until it can be proved that the other more serious possibility does not exist.

If a patient has a carcinoma which can be felt digitally, it is better to do the proctoscopic examination without preparatory enemas, merely to avoid causing undue inconvenience. When a patient is ill from other causes, the same course should be followed. However, even in these instances, a warm, cleansing enema or two before a second examination can do no harm if lack of preparation has rendered the first examination unsatisfactory. In fact, a soothing, warm enema often will make such patients so much more comfortable that the experience will not only be rendered easier for him, but the information gained by the examiner will have increased value. I therefore request patients to take one or two warm, cleansing enemas before examination. Plain water usually will suffice, but soapsuds made from some bland, nonirritating soap may be used.

If the patient is a male, he should be received in the examining room by a physician, who should assist him in removing portions of his clothing and in assuming the proper position on the examining table. Then he is suitably draped by the physician before the nurse appears. If the patient is a female, the nurse should perform the duties just described before the physician appears. After the patient is in position, the physician takes complete charge, and no other voice than his should be heard until the examination is completed. It must be remembered that, regardless of their temperament, many patients are afraid, or at least concerned, about what is going to happen. When the first move that is made will literally stand him on his head, he may be expected to be mildly surprised if not completely demoralized. The physician, therefore, should not invert the patient immediately, but should proceed with a quiet discussion of his condition. The examiner should indicate that he is



entirely familiar with the patient's problem and that particular care is to be taken in the examination. There is nothing which stimulates his confidence as much as asking if there is anything painful about the rectal outlet or if he has been troubled with pain at the time of defecation. It makes no difference if this fact has been established during the taking of the history and the question, therefore, seems superfluous; repeating it just before the beginning of the examination is of great value as a part of what might be called the "vocal" anesthesia and which is a most significant part of the technic of proctoscopy.

The examination is begun by inspecting the anal margins, perianal tissues, and that part of the anal canal which can be exposed by gentle but forceful separation of the buttocks.

The digital examination which is made preparatory to proctoscopy has for its chief object the determination of the characteristics of the anus and its sphincter muscles in relation to proctoscopy. At this time it is learned if there is any contraindication to passage of the proctoscope because of pain, muscular spasm, obstructive lesions, and so forth, and a great deal may also be learned concerning the ability of the patient to coöperate.

A thorough and comprehensive digital examination is not possible with the patient in the inverted position and it should not be assumed that this method of examining the upper part of the rectum or of palpating pelvic abnormalities is advocated. It is possible to feel many lesions in this manner and usually it is possible to determine the size of the pelvic masses and the degree of their fixation; however, if thorough digital examination is desired, it is much better to place the patient in the lithotomy position so that palpation can be performed more satisfactorily, and higher levels can be reached by having the patient bear down while bimanual examination is performed with the index finger of one hand in the rectum and the other hand palpating through the wall of the lower abdomen.

Preparatory to proctoscopy the instrument is grasped firmly in such a manner

as to prevent the obturator from slipping when it is pressed into the anal orifice and the patient is told that the instrument is no larger than the index finger which has just been inserted and that it should not cause any more discomfort. After the instrument has been gently but firmly forced past the inner anal margin, its forward motion is discontinued until the obturator is withdrawn. Immediately thereafter the examiner looks through the barrel of the instrument and continues the insertion of the proctoscope under direct observation. No attempt ever should be made to insert a proctoscope beyond the anus unless its progress can be carefully watched in this manner. As the obturator is withdrawn, the ampulla of the rectum "balloons" visibly as air enters the bowel. This is made possible by the fact that, in the inverted position, the intestines fall out of the pelvis, into the abdomen, and the negative pressure draws air in through the proctoscope, thereby filling the recesses of the terminal part of the colon.

When the proctoscope passes the region of the rectosigmoid and enters the lower sigmoid, it often produces on the mesosigmoid a tugging effect which causes an abdominal cramp, and the patient again should be informed of this probability before it occurs. If he is not informed about this, it will come as a surprise, and he will not only be unable to control himself, but he may actually cry out or attempt to get up from the table. Finally, by this painstaking method, insertion of the proctoscope is accomplished and it is then, and not until then, that the inflating bulb should be used for the purpose of ballooning the bowel. By this maneuver it may be possible to see several inches of bowel beyond the reach of the instrument, and it is also helpful in rendering visible the lower portions of the sigmoid and rectum as the instrument is withdrawn. The major portion of the examination should be conducted while the instrument is being withdrawn. During the first part of the procedure most of the examiner's attention should be devoted to insertion of the instrument. There is no definite formula which can be followed during insertion of the proctoscope. The me-

chanical details involved are complex, and only in a general way can the various maneuvers be outlined. Knowledge of the anatomic relationship of the anus and rectum will help, but it is surprising how confused it is possible to become in spite of this information.

There is one feature in regard to the relationship of the anal and rectal structures which is significant, and inasmuch as it remains constant in all normal people it should be kept in mind. With the patient in the inverted position, if the index finger is inserted straight through the anal canal, it will be found to point straight across the pelvis toward a point in the abdominal wall above the symphysis pubis; in people of normal proportions it will aim toward the region of the umbilicus. The anterior wall of the anus lies almost in a direct line with the anterior wall of the rectum, but the former inclines just a little forward, and the direction of the latter is just enough posterior that sufficient angle is formed to cause any straight instrument which traverses the normal anal canal to bruise the rectal wall in the region of the prostate gland in the male and in that of the mid-vaginal canal in the female. The angulation between the posterior wall of the anus and the posterior wall of the rectum is much more extreme, and this too bears an important relationship to the proctoscopic examination. Therefore, if the physician proceeds to force a proctoscope straight ahead along the direction of the anal canal, he will produce discomfort in proportion to the amount of pressure exerted, but if he removes the obturator as soon as the distal end of the instrument has passed through the anus and the scope is directed in the direction of the sacral promontory, this difficulty can be avoided easily.

At first, the instrument is directed through the anal canal and is aimed in the general direction of the umbilicus. As soon as the instrument has entered the rectum, the obturator is withdrawn, inspection is made through the barrel of the instrument and the instrument is directed backward, in the general direction of the sacral promontory. By doing this, when the walls of the rectum stand apart, the proctoscope

is enabled to pass through the midportion of the rectum, and it will strike the posterior wall somewhere in the region of the junction of the middle with the upper third. The distal end of the scope will have passed beyond the first two valves of Houston, and the problem which now arises is due to the fact that the curve of the anterior rectal wall (and the valves) is concave anteriorly. This is the form which the rectum assumes as it lies within the hollow of the sacrum. Therefore, the scope must be adjusted in such a manner as to force the anterior wall of the rectum forward. The scope is not inserted further until it comes opposite the lumen of the upper rectum which, until this time, it has been impossible to see because the valves and curve in the anterior rectal wall obstruct the view. Occasionally the lumen may be found open, but many more times it will be found closed (especially if the patient is straining), and it is at this point that the novice usually makes the mistake of reaching for the inflator. Now the abilities of the examiner will be tested, and if he resorts to inflation, probably he will fail. Rarely will an experienced proctoscopist be able to pass the scope past this region with the aid of an air bulb when he could not have done it without air pressure if he had handled matters properly.

When the valves have been moved, the anterior rectal wall has been pushed forward, and it has become possible to slip the scope up a little further, it is often confusing to find what is apparently a blind pouch. The examiner may search in vain for a way out, if he is not familiar with the procedure, and only experience will provide the necessary skill. At such times there is always one fold, and there may be several folds, in the wall of the bowel which may be so obscure as to be completely lost to the examiner. Only by seeking behind these folds can the examiner proceed, and moving folds of bowel about in a sigmoid which lacks normal mobility is no easy task. In fact, many factors render this search difficult and often futile because, even after one fold has been passed, another is encountered, and so on until one is found which will not be moved. At such a time, inflation, ingenuity, capability, expert psychology, and



"vocal anesthesia" all avail naught. However, results are generally satisfactory when one has had enough experience to know where and how to hunt for the folds and how much pressure to use in trying to slip them aside with the distal end of the proctoscope.

#### CRYPTITIS AND PAPILLITIS

The structure and position of the anal crypts and papillae make them peculiarly susceptible to trauma and subsequent attack by infective microorganisms which occur normally in the intestinal discharges, although, anatomically and histologically, it seems that provision has been made to reduce the vulnerability of the rectal outlet by the flexible arrangement of its tissues and by their liberal endowment with lymphoid tissue. There are, however, significant factors which account for the occurrence of inflammatory disorders in this region. The redundant folds of mucous membrane in the lowest segment of the rectum, as well as the flexibility of the tissues of the anal canal and its margins, are sufficient to allow for great stretching and dilatation during defecation. The resistance to infection provided for by lymphoid tissue about the crypts and the elaborate network of lymphatic chains sometimes is overcome, and an active inflammatory process results.

The pathologic characteristics of these disorders are grossly rather obscure in the early, simple inflammatory stages, and usually they are discoverable only when some change in the contour of the papillae or the crypts becomes apparent. The papillae may become enlarged, and this increase in size may vary all the way from simple lengthening and sharpening of the tips to the development of sizeable masses. It is not unusual to find an hypertrophied anal papilla one centimeter in diameter and one to two centimeters long; often a papilla is two to three centimeters in length, and such masses have been seen with multiple, irregular nipple-like projections four to six centimeters in diameter projecting from the anus. It is not at all unusual for such a tumor to be mistaken for a polyp.

It is not always easy, or even possible,

to discern the simplest type of inflammatory changes in the anal crypts. Merely being able to get a hooked probe into them, possibly a little deeper than usual, should not be considered sufficient evidence of disease to justify a diagnosis of cryptitis. Inflammatory changes here produce the same reactions that they produce in other tissues. The tissues appear reddened and possibly edematous, and slight trauma may produce bleeding. Often the enlargement of adjacent papillae will help establish the diagnosis. In the presence of intense infections, also, a cascade of blood often flows from behind the pectinate line, and sometimes the tissues will be found definitely broken down with ulceration.

The intensity of symptoms depends on the degree of involvement. In the case of simple inflammation of the crypts or papillae, or both, there may be only a mild soreness or burning discomfort which is constantly present and is increased during and immediately following defecation. If the infection is more severe or if there is ulceration, the discomfort may be marked. Often, at such times, there is an associated spasm of the anal sphincters which interferes with the ability to evacuate the rectum and the resulting discomfort strikingly resembles the pain produced by an anal fissure. If papillae are enlarged, they may act as foreign bodies in the anal canal and may produce a sensation of incomplete defecation, or pain may develop as a result of the edema, inflammatory changes, and spasm of the anal sphincters. Even one enlarged papilla may cause these symptoms. Enlarged papillae may protrude through the anal orifice and slip back unassisted following defecation or they may be so large as to require manual replacement. Occasionally the patient finds it impossible to replace them because of their size and the overactivity of the anal muscles, and the protruding papillae may even be found in a state of strangulation or sloughing. At the clinic we have not found the peculiar "crawling sensation," which often is referred to as significant in the symptomatology of these conditions, to be worthy of serious consideration.

The occasions on which surgical opera-



tion is required in the treatment of diseased crypts alone are rare, and the frequency with which they are at present subjected to operation is unwarranted. Operative treatment consists in first dilating the anus carefully and only sufficiently to expose the parts on which the operation is to be performed. The diseased crypts are opened by inserting a hook into the depths of the crypt and pulling it forcibly outward toward the anal margin, thus splitting it in a radial direction. This is followed by excision of the superfluous skin along the margins of the split, and it is important to carry the excision far enough external to the anal orifice to prevent the accumulation of discharges under the skin of the anal verge. Unless this precaution is observed, edema and even abscesses may develop, and the postoperative period may be prolonged and complicated. Each diseased crypt is treated in this manner, and after the bleeding has been controlled the operation is completed by inserting a small wick of iodoform gauze. During the postoperative period, hot, wet dressings and irrigations with suitable medicaments will clear up the infection, heal the wounds, and relieve the anal spasm.

The operative procedure employed in removal of an hypertrophied papilla, with no other pathologic condition of the anus present, is simple dilatation of the muscles and excision of the papilla followed by suture. The same principle should be observed with regard to excision of the tissues at the anal margin external to the papilla, as was described in connection with excision of the anal crypt. A clamp can be applied to the anal margin and the excision begun at that point, with another clamp applied to the papilla for the purpose of retraction. After excision of the marginal skin has been carried to the base of the papilla, a crushing clamp is applied and the tumor is excised. Suture completes the operation, and the dressings and postoperative care are as described in treatment of anal crypts.

## ANAL FISSURE

The cause of anal fissure can be found in the anatomic structure of the rectal outlet and in the peculiar vulnerability of the anal crypts and the pectinate line. One of the most significant features in the cause of anal fissure is the peculiar relationship of the anal walls to those of the rectum; this has been described. Moreover, as the rectal ampulla lies in the pelvis it curves around in the hollow of the sacrum so that when feces come down from the sigmoid, the mass passes into this space toward the posterior half of the rectum, and as it accumulates in the bottom of that segment of the bowel, most of its weight is exerted on its posterior aspect. Thus, in defecation, the force of practically the entire expulsive act is exerted on the posterior wall of the rectum, just above the posterior anal margin, on that portion of the anal wall which has the least support. This combination of circumstances explains the presence of fissures, as well as their tendency to involve this particular portion of the anal outlet.

The ulcer usually will be found on the posterior aspect of the anus, and its position with regard to the external orifice and the internal anal margin is significant. In typical cases the ulcer will be found situated entirely external to the pectinate line, and by this fact alone it can be distinguished from an ulcerated anal crypt. In a case of ulcerated anal crypt there will be a break in the pectinate line where the crypt has involved and broken open the anal tissues. In a case of anal fissure, not only is the pectinate line unbroken, but one or more of the papillae of Morgagni immediately internal to it are likely to be enlarged. The ulcer itself has no characteristics by which it is distinguishable from a similar ulcer elsewhere, and its intractability is the same as that of a varicose ulcer of the lower extremity, to which it bears a close resemblance. It is indeed a varicose ulcer.

Of patients who have anal fissure, eighty-five per cent complain of pain, and ninety-seven per cent of those who complain of pain refer to it as occurring during and after defecation. The pain either starts, or its severity increases, during defecation and its duration afterward depends on the size of the lesion, its acuteness, the amount of inflammation in the anal canal, and the degree of anal spasm.

Inspection of the anal margins may reveal only a spasmodic twitch. This may appear independently of apparent stimulus, or as a reaction to the application of the examiner's hand or finger to the tissues about the anal orifice. The sentinel pile may be seen near the margin which is adjacent to the ulcer. Spreading the anal margins may reveal the external portion of the ulcer, but this is not always possible unless anesthesia is applied. Application of ten per cent solution of cocaine, first to the ulcer itself, and later, as it becomes desensitized, to the walls of the anal canal, usually will relieve pain and produce relaxation of the anal muscles which will make possible complete examination. Then the lesion and its associated pathologic changes can be exposed and the diagnosis made.

The only uniformly successful treatment for anal fissure is surgical. Following pre-operative preparation and anesthesia, the anal walls are carefully dilated. Obviously some muscles require a great deal more stretching than others and, more important than this, some muscles are so frail that they will stand very little stretching. The condition of the muscles can be determined as soon as the index finger has been inserted, and then the surgeon should decide on the amount of pressure which should be applied. After proper dilatation, a retracting anoscope is so placed as to expose the anterior and posterior anal walls, or if the fissure involves the lateral walls, the anoscope is placed anteroposteriorly and the lateral walls are exposed. However, I shall describe the operation for

fissure of the posterior anal wall because it is there that a fissure is likely to be found.

After the anoscope has been placed in position, a square piece of gauze is inserted into the rectum in order to prevent accumulation of blood in its upper recesses. The muscle of the posterior anal wall is then divided (through about half its substance) with a pair of scissors, the split being made through the central point of the fissure. This incision is carried from the inner margin of the fissure outward, well beyond the external margin of the anal orifice. This is a most important part of the operation and if not done properly often will be responsible for an unsatisfactory result. A clamp is then applied to both margins of the incision and the ulcer, along with a portion of the external sphincter, is cut away by grasping each clamp in turn and excising that portion of the tissues to which it is attached. After this, the skin is cut away from the anal margin for a distance of about three or four centimeters external to the position of the pectinate line and, in addition, any marginal deformities are excised. If there are any hypertrophied anal papillae or open crypts, these are excised so that, after the operation has been completed, there is left an open wound which has replaced the posterior quadrant of the anus. The inner margin of this wound is at the level of the pectinate line; its external limit is about two centimeters posterior to the external anal orifice, and it extends laterally as far as the junction of the lateral with the posterior quadrant on either side. The external sphincter in that area is exposed, and after suitable measures have been instituted to control bleeding, the operation is concluded by placing sutures to connect the free margin of the mucosa with the anal wall in as nearly the normal position of the pectinate line as possible. Care must be exercised to avoid bringing the mucous membrane out too far and by no means must it be sutured to the free margin of the skin. It is best to place the sutures along the mid-line of

the anal sphincter or, if in doubt where that is, it is better to place them nearer the inner margin of the muscle. All these precautions are observed in order to prevent the mucous membrane from growing in such manner as to become exposed when the anal sphincters are closed.

When the operation for anal fissure has been completed, a drain, consisting of two or three layers of iodoform gauze one inch (2.5 centimeters) wide and about three inches (7.5 centimeters) long, wrapped in rubber tissue, is inserted through the anal canal and several pieces of the same gauze, cut in sections one inch long, are applied to the area whence the fissure was excised. After this, a wad of loose gauze is applied lightly over the anus under a T-binder, and the patient is returned to his room.

#### ANAL FISTULA

Probably the difficulties which arise in the management of this disease are largely due to a faulty conception of the meanings of the terms which are used to designate it. The source of a fistulous tract has been known as the "internal" opening and such terminology accords with the facts. However, the terminal opening has been known as the "external" opening, and only in some cases does that accord with the facts; the terminal opening may be internal. It would be preferable, then, to discard the old terms and to substitute in their place the word "primary" to designate the point of origin of anal fistulas and the term "secondary" to indicate the point at which they terminate. Thus, although the primary opening is always internal (within the crypts of Morgagni), the secondary opening may occur either externally in the skin or internally in the wall of the rectum, vagina, or bladder, and so on.

There is little doubt but that any of the pyogenic organisms which inhabit the colon are capable, immediately on gaining admission to normal tissues, of producing inflammatory changes which may terminate with the formation of an abscess. To speculate

as to which of these organisms or groups of organisms is usually responsible for the development of anal fistula would be of little value here.

The physician should not allow himself to be shunted away from the proper management of the disease because he finds evidence of tuberculosis, either locally or in some other part of the body.

Any accident which produces solution in the continuity of the tissues which invest, or are adjacent to, the anal crypts can produce anal fistula. Accompanying such a break, microorganisms capable of producing inflammatory changes are admitted into subcutaneous and submucous layers which are richly endowed with lymphoid tissue. Here is an ideal field for the development of a focus which may extend itself until the burrowing sinus reaches its completion in the form of an anal fistula. In and about the anal crypts, therefore, are the primary openings of all anal fistulas. Regardless of how many open sinuses are discovered, either internally or externally, none of them bear any significance as far as the origin of the disease is concerned, unless they exist within the anal crypts themselves. With this conception only is it possible to gain a proper understanding of pathologic changes or the therapeutic attack.

*First Stage.*—The first stage in the development of anal fistula begins with involvement of the anal crypt. This process, for convenience, may correctly be termed "cryptitis." The tissues react locally; edema of the mucosa and hypertrophy of the adjacent papilla appear. An exudate may seal together the mucosa and the papilla or the edema may close the crypt and a nidus of infection may develop, from which the fistulous process extends.

*Second Stage.*—During this stage the infection extends from the primary opening, in various directions which are designated in accordance with the relationship which the burrowing tract bears to the muscular structure about the anorectal outlet.



1. The course of this tract may be immediately beneath the skin of the anal canal and superficial to the anal musculature. Such a fistula may form in association with an ulcer (fissure) at the posterior margin of the anus. This is exceptional, however, because although fissures usually originate as a result of undermining of the anal tissues by infections which begin in the anal crypts, yet rarely is any gross connection found between the fissure and the adjacent crypts. Such fistulas are usually termed "submucous," and erroneously so, because the anal canal is lined with stratified squamous epithelium. If a term of this kind is to be used, the word should be "subcutaneous."

2. Many tracts will force their way through the body of the external sphincter.

3. Others pass between the external margin of the internal sphincter and the internal margin of the external sphincter without involving either.

4. Still others go either superficial to, or directly through, the internal sphincter or the circular muscle fibers of the lower rectum.

These are the variations in the course of the burrowing stage of anal fistula and they follow into the next stage, which begins with development of the abscess.

*Third Stage.*—In this period there is formed an abscess, which is usually called an "ischiorectal" abscess, but with the proper understanding of those events which have transpired previous to this time, it is apparent that anal fistulas do not originate as ischiorectal abscesses.

*Fourth Stage.*—Either the abscess progresses until the cavity that is filled with pus ruptures externally or internally, or a surgical operation is performed to evacuate the contents of the abscess cavity.

*Treatment of the Abscess.*—It is not always easy to determine the opportune moment to incise an abscess, but in general it is best to allow it to approach as nearly as possible the point of rupture. In special

cases immediate, early action may be necessary, of course, but usually it is possible to wait. By waiting, the wall of the abscess may become well outlined and when it breaks through the surface of the skin, or is incised through a thin partition, the wall of the abscess becomes continuous with the margin of the skin. The patient's temperature drops soon after the abscess has been evacuated, and he is almost entirely relieved of discomfort. The pyogenic wall of the abscess soon begins to contract and is reduced to a small, tubelike fistula in a short time. However, if an abscess must be incised through several centimeters of intervening tissue, the temperature may drop momentarily, but there is another rise as the cut surfaces of tissue become exposed to the purulent discharges of the abscess and the patient remains sick for a longer time. The surfaces of the wound become inflamed, edematous, and painful. It is necessary to make much larger incisions to evacuate such abscesses, not only because they are deeper, but because the thick wall of the intervening tissue tends to block the cavity. Abscesses of the ischioanal spaces usually point somewhere in the surface of the perineum, in the anococcygeal region or laterally in the tissues of the buttock. Lateral pointing occurs in eighty-four per cent of cases, and the source of such abscesses usually is the posterior wall of the anus. Such an abscess should be opened by a cruciform incision, and the tissue between the crossed incisions should be cut away in order to leave a roughly circular opening. This opening should be large enough, all the way from the surface of the skin to the depths of the cavity of the abscess, to prevent interference with evacuation of pus. Unless the abscess is very large, it is well to make the incision as wide as any part of the cavity.

Sometimes, but not often, an ischioanal abscess is connected by an isthmus with another portion of the abscess that is situated above the levator ani muscle, in the pelvirectal space. Such a condition can be

suspected when a greater volume of pus is expelled from the abscess than it seems possible for it to accommodate if it is limited to the ischioanal space. It is not justifiable, at the time of primary incision, to explore the abscess cavity thoroughly to prove whether it is shaped like a dumbbell. In the acute stage, the pyogenic wall of the abscess is friable, and the slightest carelessness during digital examination of the cavity may break through this wall with grave consequences. Septicemia and pyemia are not unknown following such exploration. It is better to allow the pelvirectal portion of the abscess to go undiscovered than to break down the protective pyogenic wall. The condition can be closely observed and, at a later time if necessary, the opening through the levator ani muscle can be enlarged.

When the pelvirectal or retrorectal spaces become involved and there is no pointing or fluctuation externally, and when the soft, cystic abscess is discovered adjacent to the upper wall of the rectum, it becomes necessary to open it by incision through the rectal wall. Sometimes such an abscess will involve the rectovaginal space and will appear to project just as much vaginally as rectally, the rectal wall should then be chosen as the site of the incision. If, in any instance of this kind, the abscess is situated sufficiently low that its connection with the anal crypt at the point of origin can be determined, a splitting incision should be started at the primary opening and carried into the cavity of the abscess. After this, the opening can be enlarged by cutting away the incisional margins and often, thereby, a secondary operation can be avoided.

When small abscesses form within the anal canal, or at its margins, it is sometimes possible, when opening the abscess, to carry the splitting type of incision internally until it includes the anal crypt at the source of the infectious process. Then, by cutting away the superficial tissues, the cure can go on to completion in one stage.

This is especially true if the condition begins in crypts of a lateral wall of the anus. Such abscesses are often much simpler and of smaller proportions than those which originate from either the anterior or the posterior anal crypts.

Usually attempts should not be made to anticipate the final fistulectomy by performing more radical operations on the acute abscess. However, in those rare instances in which it is possible, the patient is entitled to that consideration.

The time which should elapse between drainage of the abscess and fistulectomy varies within wide limits. Many patients will be greatly disappointed when a number of weeks are allowed to elapse following incision of the abscess and drainage from the wound continues. Therefore, the physician always should explain the nature of the ailment as clearly as possible and impress the patient with the fact that a second operation will be necessary. It would be better to allow him to seek assistance elsewhere if he is unwilling to enter into this arrangement. It is desirable for the acute condition to subside entirely, or as much as possible, and if sufficient time is allowed, large abscess cavities may become reduced until they are mere fistulous tubes. In any event, the walls of the cavity become fibrous, its outline becomes more definitely limited, and the sacrifice of tissue which accompanies fistulectomy is thereby reduced. Lapse of only a few weeks between incision of the abscess and fistulectomy usually is sufficient, but occasionally patients are in such poor physical condition that delay is owing to that factor.

*Treatment of the Anal Fistula.*—The chief factors concerned in any operation for anal fistula are four: (1) The primary opening must be found. (2) The fistulous tract or tracts must be traced. (3) Structures external to the primary opening and the fistulous tracts must be cut away so that the fistulous tunnels are converted into open ditches throughout their entire course. (4) Measures must be adopted during and

following the operation to insure that the cavity will heal from within outward without development of further tracts.

Operations for anal fistula should begin at the source of the disease, but most of them, it seems, are begun at the secondary opening (external) and the attempt to trace the tract is started at that point. Some surgeons inject colored solutions or pastes at the start; others insert a probe or grooved director through the secondary opening into the fistulous tract. When this latter procedure is followed in an attempt to trace a fistulous tract that courses at an angle through the tissues, the wall of the fistula may be perforated and the probe may enter normal tissue without the surgeon being aware of it. Such an accident may misdirect the efforts of the surgeon during the operation, especially if he proceeds to cut blindly along the grooved director. The director may pierce the rectal wall and thus give the impression that the source of the disease is located high. The resistance of the fistulous wall and the tissues in which it lies is often so slight that it is not possible to determine whether the tract is being followed. Therefore, whether one begins the operation at the primary or at the secondary opening, the probe should be inserted only a short distance at a time before splitting the fistulous tube. By observing this precaution large portions of normal tissues are not likely to be uncovered unnecessarily, and if the operation is begun at the primary opening, the possibility of missing the point of origin of the disease is eliminated. The operation should be begun by attempting to expose the structures of the anal canal. The anus should not be stretched forcibly before exploration of the tract is begun. Unless it is impossible to gain entrance to the anorectal outlet, the tissues that have undergone fibrous contracture should not be broken. The reason for this precaution is that the fistula usually passes through the region of fibrous deformity surrounding the anus and, under forceful dilation, the tract is likely to be

broken. Such breaks may be numerous and the task of ferreting out the course of the fistulous tube thereby will be made difficult if not impossible.

Examination of the anal crypts is of the utmost importance in connection with anal fistulectomy. Usually the point of invasion of the infective organisms is discovered immediately. Usually, also, an open sinus is found and often pus will be seen as it escapes into the lumen of the anal canal.

*Operation.*—By bending the probe so that it will conform to the curve of the fistulous tract, it is generally possible to force it through the primary opening, through the fistula, and out through the secondary opening. Then an incision is made through the tissues superficial to the probe until the entire tract is laid open and the probe lies free in the wound. This incision will sever a portion, and often all, of the fibers of the external sphincter. Sometimes the tract will be found to pass through, or internal to, the internal sphincter, and then this muscle also must be cut. Sometimes it will not be possible to pass the probe through the tract as indicated above, and then it becomes necessary to insert it for a short distance, lay the tract open that far, and then reinsert the probe further and continue the incision in that manner until the entire tract is uncovered. At other times, due to the contraction of the anal orifice, it may not be possible to insert the probe through the primary opening at all. It then becomes necessary to explore the tract from the secondary opening toward the anal canal and it is in such instances that extreme care must be exercised in order to avoid forcing the probe out into normal tissue. In such cases, at the clinic, we usually insert the probe through the external opening as far as it will go without undue pressure (sometimes only two to three centimeters) and lay the tract open that far. Then by scrubbing the fistulous wall with dry gauze we are able to distinguish the point where the fistulous canal continues on toward the anus. The fistula



is usually filled with grayish, gelatinous débris, and after this has been scrubbed away from the walls, one point will be found at which this grayish deposit cannot be removed. The probe usually will find its way into the remainder of the tract when passed through this deposit, and thus incision of the tract is carried to the anus. In the same manner, subsidiary tracts are discovered and incised. When the main tract is opened to a point adjacent to the anal wall, it is not difficult to establish its connection with the primary opening. Then the probe is passed into the anal canal through the primary opening and the structures external to the tract are divided.

All fistulas are not of the simple structure just described, and the more complex varieties present great difficulty.

Operations on the simpler types of fistulas are completed by dissecting away the overhanging edges of the tracts and the tissues of the anal margin in such a way as to facilitate application of dressings during the postoperative period. When the tracts are superficial, they can be excised. When they are very deep, the walls of the tract sometimes cannot be excised without excessive destruction of tissue and usually they will heal satisfactorily if they are scarified with a curette.

Occasionally, from what appears to be a simple fistula, a subsidiary tract runs upward through the levator ani muscle into the tissues of the pelvirectal space and ends blindly in that region. It is a mistake to explore such a tract and lay the tissues wide open in an attempt to dissect it out. If the nature of such a tract is considered, it will be readily understood that such a procedure is unnecessary. The source of the infection which was responsible for this fistulous limb is in the primary opening, and inasmuch as this has been uncovered, the infectious discharges from the rectum, which have kept the fistula active, no longer can reach this branch of the tract. There is, therefore, no possibility that it can per-

sist, and if left alone, it will ultimately shrink down into an inactive, fibrous cord.

If, however, such a subsidiary tract has found its way through the levator ani muscle into the pelvirectal space, has developed into an abscess which has adhered to the rectal wall there, and has broken through to form a secondary opening in the upper rectal wall, a more elaborate operation is required. In such a case it is necessary to carry an incision through all those tissues which intervene between this subsidiary tract and the rectal wall, all the way up to the secondary opening. The rectal wall itself is split, from the site of the primary opening at the inner anal margin up to the high rectal opening, and the subsidiary tract is laid open in continuity with the rectal lumen; the operation on the subsidiary tract, in other words, is an intrarectal operation. A large deep wound is created by such an operation, but unless this procedure is followed, cure cannot be expected.

*Horseshoe Fistula and Fistulas of Generally Similar Type.*—The horseshoe fistula is another complicated type of fistula which is probably better known than any other. This fistula has bilateral limbs, and multiple secondary openings on either side of the anus, but a common primary opening in the posterior wall of the anus. It may occur as a result of invasion of an anterior anal crypt, but not often. The problem is identical whether the fistula is anterior or posterior; therefore the posterior type will be considered. The operation is no different from that described for a simple fistula with the primary opening in the posterior anal wall, and with a tract which courses to one side, except that the same procedure is carried out for the tract which runs to the other side as well. The tissues superficial to the primary opening are severed at the posterior (or anterior) anal margin in the same manner as has been described, and if an old, chronic abscess

cavity is found retrorectally it must be curetted.

Loss of control of the bowel rarely should complicate anal fistulectomy unless previous operations have been performed for correction of the fistula and have failed to produce cure. In such instances, the destructive processes which occur incidental to the development of abscesses, especially when they are recurrent, already may have caused a certain degree of incontinence. Even then, it should be possible to reduce the disability.

It is probable that no part of the operation of anal fistulectomy has been practiced with more uniformity than packing of the wound with gauze after the operation has been completed. To this feature there is no objection. However, to permit these dressings to remain in position for a week or more is a grievous error and is the greatest factor in production of incontinence.

One of the prime objects to keep in mind during the entire operation is to arrange the tissues so that they will heal from the deepest portions of the wound toward the exterior, wall against wall, in such a manner that the structures will be drawn together by a block of scar tissue throughout.

When healing occurs thus, the remnants of the anal sphincters will become attached to a firm block of scar tissue and, as their contractile power is exerted on this scar, the anal orifice will close in the same manner, and with practically the same degree of efficiency as before operation.

But this desirable type of healing will not take place if packing remains in the wound. Immediately after an extrarectal or an intrarectal wound has been made, the tissues begin a reparative process in order to control bleeding, to deal with the invasion of their substance by infective organisms, and to seal over the exposed surface by the formation of a scar. When gauze is withdrawn from the cavity of such a wound after too long an interval, it is too late for the wound to heal wall against wall because its cavity is lined by a membranous, elastic scar, and no matter how much of the anal sphincters is left, and no matter how efficient they may be, the force which they exert on this cavernous scar is powerless to close the rectal outlet. Incontinence usually is not due to absence of muscle, but to the fact that the muscle has been deprived of its constricting power by interposition of an elastic membrane of scar tissue.

## AN ANALYSIS OF CERTAIN PRINCIPLES AND PROPOSALS DRAFTED AND PROMULGATED BY A SELF-APPOINTED GROUP OF DOCTORS

H. H. SHOULDERS, M.D., F.A.C.S., Nashville

AT THE OUTSET it should be stated that certain principles and proposals were presented to the House of Delegates of the American Medical Association in June, 1937, by Dr. Samuel J. Kopetzky, of New York.

The principles and proposals in the Kopetzky resolution are almost identical to the principles and proposals embodied in the literature under review.

The House of Delegates considered the matter seriously. It was referred to a special committee. The committee made a report after very careful consideration of the question. The House of Delegates adopted the committee report by unanimous action.

The resolutions may be found in the *Journal of the American Medical Association* for June, 1937, on page 2142.

The report of the Reference Committee, which was adopted by the House of Delegates, may be found on page 2220, June, 1937.

Attention is called to these developments in order to show that these matters were presented in regular order to the elected delegates of organized medicine and were acted upon.

Some of the members of this self-appointed group of physicians shared responsibility for this matter coming to the House of Delegates of the American Medical Association. They were not content with the action, however. Certainly they wanted an endorsement of the principles and proposals. They have, therefore, classed themselves as revolters and proceeded to take independent action in the lay press.

In order that our membership may be informed on the subject it has been deemed appropriate to analyze these principles and proposals in brief fashion.

The following analysis was presented to the Board of Trustees and endorsed by that body for publication in the *Journal* on November 14, 1937:

Organized medicine holds to the view that any proposal made in good faith by a responsible person, or group, aimed at the improvement of medical service received by the people of the United States, deserves careful consideration.

Organized medicine holds to the view also that the group which compose organized medicine in the United States, consisting of 105,460 doctors, have been giving serious consideration to suggestions and proposals for a long period of years. Not only is this true, but organized medicine has been sponsoring movements and leading in movements aimed at such a laudable objective.

Organized medicine points with pride to the fact that we sponsored the movement for the creation of health departments in the various states. We sponsored movements for their increased appropriations.

Organized medicine has taken every step, within reason, and consistent with our form of government and ideals of living, to improve the character of medical service rendered by every individual doctor in America.

Organized medicine has taken steps to promote the erection of hospitals where needed. We have sponsored movements to erect and finance, out of public funds, charity hospitals in cities throughout the country. Organized medicine has staffed these institutions, and, in a large measure, without any remuneration whatever.

Organized medicine points with pride to the fact that the people of the United States today receive the best quality of medical care received by any group of people of similar size in the world. This statement is supported by the demonstrable facts that the mortality rate of the United States and the sickness rate, with minor exceptions, are lower than in any other country on earth.

Organized medicine has sponsored and cooperated in the development of movements in various localities of plans for the



payment of medical care by low income groups. In fact, there is not a single phase of medical education, medical legislation or medical administration that has not received the careful attention of organized medicine in America.

The principles and proposals under consideration have received careful attention before this group of 430 doctors ever wrote them. There is nothing essentially new in any one of them.

Brief consideration will be given to each and every one, however, in order that there may be no misunderstanding.

Principle No. 1.—“That the health of the people is a direct concern of the government.”

In discussing this principle it is appropriate that we consider this question: What constitutes the government of the United States? Have we a government of the people, by the people, and for the people; or, have we a government composed of an oligarchy to which the people look for benefits?

The proper consideration of this question, then, involves a consideration of the attitude of the individual toward the government.

Organized medicine holds to the view that ours is a government of the people and for the people and by the people; that governmental agencies are our servants, not our masters, and, therefore, certainly every individual that composes the government is concerned with the health of the people.

Medicine has held to the view that there are phases of preventive and curative medicine which may be properly classed as administrative. There are other phases of medical care which cannot be so classed and have not been successfully dealt with by such a measure. So there is nothing new in Principle No. 1 unless the sponsors of the statement intend for it to convey the meaning that the government will proceed to constitute itself a tremendous overpowering influence and become the *master* and *not the servant* of the people.

Principle No. 2.—“That a national public health policy directed toward all groups of the population should be formulated.”

That has been the policy of organized

medicine always. The policy of public health agencies must not be directed toward benefit of any single group of people. For example, we favor such quarantine regulations as will prevent cholera, plague, etc., from entering this country. All ships that arrive in the ports of the United States are inspected. Such services are for the benefit of all the people.

We favor community quarantine regulation. We have favored always those policies and regulations which are capable of rendering benefits to the people as a whole without segregating them into racial, economic, and sociologic groups.

It is apparent that the sponsors of this principle intend to segregate the people into groups on some basis, exactly what nobody knows.

Principle No. 3.—“That the problem of economic need and the problem of providing adequate medical care are not identical and may require different approaches for their solution.”

This is a very ambiguous statement of principle. If we grasp its meaning there is certainly nothing new about it.

A person who is without money, without food and a house and sick needs all and not just one of these necessities. That is obvious to anyone.

Principle No. 4.—“That in the provision of adequate medical care for the population four agencies are concerned: voluntary agencies, local, state, and federal governments.”

There is nothing new in this statement of principle. Right here in Tennessee every one of these agencies are at work already, including doctors which are specifically omitted from the statement of principle, unless the term “local agency” is meant to cover the doctor also.

## PROPOSALS

Proposal No. 1.—“That the first necessary step toward the realization of the above principles is to minimize the risk of illness by prevention.”

Under the leadership of organized medicine preventive medicine has made the most rapid progress in the United States of any country in the world already, and we rec-

ognize fully there is much work to be done, but organized medicine insists that plans for such effort be based on sound, scientific, economic, and sociologic principles.

Proposal No. 2.—“That an immediate problem is provision of adequate medical care for the medically indigent, the cost to be met from public funds (local and or state and/or federal).”

The indigent members of our population have been the concern of organized medicine since its inception. The fact that indigent people exist was recognized more than eighteen hundred years ago. One of the highest principles in the Code of Medical Ethics concerns our services to the indigent.

During the depression, organized medicine has been applauded for the services that have been rendered the needy without charge. It, therefore, ill behooves this particular group of “revolting doctors,” most of whom have enjoyed the benefits of salaried positions throughout the depression, to cast a reflection upon the organized medical profession by such indirection.

Organized medicine has recognized the economic burden. We have recognized every phase of it. We, also, recognize the accuracy of the prophecy “that the poor we will have with us always.”

It must be noted that the group of “revoltors” did not go into any details whatever with respect to the monies to be appropriated out of the treasury, both local and or state and/or federal. They did not make a specific proposal concerning the distribution of funds as to how they are to be spent, the amount, etc. So this proposal is not worthy of any group of intelligent men, much less doctors.

Proposal No. 3.—“That public funds should be made available for the support of medical education and for studies, investigations, and procedures for raising the standards of medical practice. If this is not provided for, the provision of adequate medical care may prove impossible.”

This proposal No. 3 means that the public treasury must support medical education and any number of other activities which might have as their objective the raising of the standards of medical practice. The statement is made also which is calculated

to give alarm to the public—it is to the effect that unless such benefits, namely, money from the treasury, be made available to all these institutions our standards of medical practice may drop to a very low level.

The public should be encouraged not to become alarmed. In the first place, as before stated, medicine has developed to a high state of efficiency in the United States under the existing plan. In fact, many states already operate medical schools. Tennessee is one of such states. So, there isn't anything new in this proposal except that it may be that some of the leaders in the revolt are anxious to have their hands in the federal treasury, as well as in the treasuries of endowment funds.

This particular proposal looks very much as if it is made in the interest of some of the authors of the proposals. It may be that these authors feel that whatever is good for them is bound to be good for the general public.

There is nothing new in this proposal. As a matter of fact, it looks as if a majority of our citizens at the present time are seeking an opportunity to put their individual hands into a local, state or federal treasury and many of them are not even graduates of any sort of university. So the proposal for a raid on local, state, and national treasuries is not new. Plenty of people have done that.

Proposal No. 4.—“That public funds should be available for medical research as essential for high standards of practice in both preventive and curative medicine.”

Organized medicine has sponsored research. In fact, organized medicine gives several awards each year for accomplishments in medical research. At the same time organized medicine recognizes the fact that benefits from research efforts do not always correspond to the amount of money spent.

Most of the research work that has been of lasting value has been done by men of vision, oftentimes without the benefit of financial aid from any source.

The public, therefore, could not appropriate a vast sum of money for research with any assurance that the particular re-

searchers employed would make any great contributions to their well-being.

Proposal No. 5.—“That public funds should be made available to hospitals that render service to the medically indigent and for laboratory and diagnostic and consultative services.”

This statement is ambiguous unless it is considered in connection with other proposals.

Public funds are already available for hospitals—the Nashville General Hospital is an example of a local institution. The state hospitals for the insane are examples of the state's contribution. Veteran hospitals and marine hospitals are examples of institutions financed entirely by federal funds. So this proposal is not specific. It is too vague for consideration.

Proposal No. 6.—“That in allocation of public funds existing private institutions should be utilized to the largest possible extent and that they may receive support so long as their service is in consonance with the above principles.”

Proposal No. 6 should be considered in connection with proposal No 5. In proposal No. 6 the meaning is implied that money is to be made available out of the local, state, and federal treasuries for the financing of private institutions, provided their service *“is in consonance with the above principles.”*

That last clause contains the catch. *Who is to determine when a local institution complies with the principles? Who is to determine the amount of money to be received for such compliance?*

Again this proposal is not clear until one reads a later proposal.

Proposal No. 7.—“That public health services, federal, state, and local, should be extended by *evolutionary process.*”

There is nothing new in this proposal. Organized medicine has sponsored an evolutionary process in preventive medicine since preventive medicine began. A living example of that may be found in any city or state in the nation. Glance backward twenty years and see what our state department of health was, and look today and see what it is, and you will observe a very glowing example of evolutionary process,

born and projected and carried forward before many of these revolutionary doctors were born.

Proposal No. 8.—“That the investigation and planning of the measures proposed and their ultimate direction should be assigned to experts.”

Proposal No. 8 contains something. They have something there if they can just *put it over.*

This proposal is undoubtedly intended to refer to the “leaders in this revolt.” It can have no other meaning than that there is to be set up in the City of Washington, and possibly in every state in the Union, a board or committee of experts vested with the power to allocate funds as they see fit, to make regulations as they see fit; to pay as they see fit; to hand out pay as they see fit, etc. This proposal can have no other meaning.

It might be appropriate to ask the question, “Who is an expert? In what is he an expert?” But this proposal must be considered in connection with proposal No. 9. Proposal No. 9 reads as follows: “That the adequate administration and supervision of the health functions of the government, as implied in the above proposals, necessitates in our opinion a functional consolidation of all federal health and medical activities, preferably under a separate department.”

What does that proposal mean? It looks innocent. It looks as if it might have virtue. In the first place, it has the meaning that the functions of every institution for medical service in the United States must be consolidated under a department in Washington. When we consider this provision in proposal No. 9 it throws light on proposals Nos. 5, 6, and 8.

It is an open secret that one of the provisions in the reorganization bill already presented to congress by the President is to the effect that a welfare department is created with a cabinet position and that the United States Public Health Service is disposed of by making it a *Bureau in a Welfare Department.*

The surgeon general did not like that provision one little bit. He could not see himself as the head of a medical bureau in a



welfare department headed by a cabinet officer.

There is some logical basis for the proposal as it was made, however.

Medicine is for the welfare of people; food is for their welfare, clothing, housing, etc., so these welfare workers in Washington meant to make medicine a bureau in a welfare department, similar, it is supposed, to the position medicine has occupied in the welfare work that has been done during the depression. The essential principle in that is that a doctor will be used if, and when, a welfare worker decides his services are needed. He will be paid a small schedule if and when the welfare administrator decides to pay it.

Organized medicine has given consideration to all the questions raised in these principles and proposals and much more besides.

Organized medicine has endeavored to consider all the factors which affect the happiness and well-being of the people.

Organized medicine recognizes many factors not touched upon by any of these principles and proposals. For example, medicine recognizes that everything connected with life and living may affect the health of the people; the food we eat, the speed with which we eat it; the way the food is prepared; the regularity with which it is eaten, etc.

With respect to clothing, we recognize that the beauty of clothing and the cost of clothing may have a very slight bearing on its utility. The weight of clothing in relation to the season and temperature may have a vital bearing on health. This embraces every item of clothing from overcoat to underwear.

We recognize that the work of people has a bearing on health—the circumstances under which work is done; the arduousness of the work, the hazard of the work, the length of the working day, etc.

Medicine also recognizes the effect of emotions on health. The emotions of fear and anxiety undoubtedly affect the health, happiness, and well-being of people generally.

It is generally recognized that fear and anxiety concerning living and concerning

the payment of taxes and concerning the matters of liberty and freedom vitally affect mental health and efficiency.

We recognize that the factor of travel, the mode of travel, the speed of travel, all have a vital influence on health and life. In fact, one might go on indefinitely enumerating the factors which affect the health of people.

Organized medicine then has already considered all the principles and the proposals enunciated by this revolting group of doctors, and, in addition, considered many other factors of health. As a result of all these considerations organized medicine still stands for an evolutionary process in the advancement of medical care—an evolutionary process which has been characterized by rapid advance, and characterized also by the recognition of the fundamental principles in the form of government under which we live, as opposed to a revolutionary process in medical administration imported to this country from countries with no individual liberty.

It is appropriate, therefore, to ask the question, "What are these men revolting against?" The only thing they can be revolting against is the principle of progress to which organized medicine subscribes; to the very principles of progress which have characterized a rapid evolutionary process in the advancement of medical care in the United States. As a result of the revolt they hope to establish a centralized authority in Washington which will take over the complete command of medicine and *by edict* and *by subsidy* dominate the whole of medicine in the United States. That is the essence of this revolt, and, in my opinion, the public should be appraised of this fact.

This so-called declaration of independence is a declaration of independence from a system of medical practice under which medical education has progressed; health administration has progressed; medical practice, including all of its branches, has progressed to the point that the best medical service to be had on earth is enjoyed by the population of the United States, when considered as a whole.

It is a declaration of independence against

evolutionary processes and in favor of revolutionary processes.

It is a declaration of independence against freedom of action on the part of the people and of their doctors in the favor of an oligarchy in medicine with absolute powers to tax and to dictate.

It might be worth while to make one or two observations concerning some of the leaders in this revolt in order that their motives may be more thoroughly exposed to the public view. Such a step is warranted by the fact that it is the obvious purpose of this group to influence public opinion by propaganda in the lay press and up to now they hold up to the public *the view of themselves* that they are an unselfish lot with superior abilities and with no purpose in their mind except that of taking over to themselves the power to guide us all to better and higher living.

Let's see then if it is not possible that some of these men may be as much, if not more, concerned with their own individual well-being than they are with the well-being of the public at large.

It is a peculiar coincidence that most of the leaders in this revolt hold salaried positions with endowed institutions. It is common knowledge that the investments of these endowment funds have not yielded a

large revenue in the last few years. It is also common knowledge that donations to many hospitals and institutions of learning in the last four or five years have not been so large as they were a few years back. Taxes are taking these surplus funds. The income of these endowed institutions from which these men draw their salaries has not been what they would like for it to be. It is possible, therefore, that these revolting leaders may be concerned with regard to the matter of increasing and making secure their personal fortunes. In other words, they may be as much concerned with the matter of getting their hands in the federal treasury, as well as in the treasuries of endowments. The circumstances certainly warrant such a suspicion.

It must be observed that these principles and proposals are cleverly drawn; clever for the simple reason that their ultimate purpose is disguised. They are disguised under the *appearance* of a profound interest in the well-being of the people of the United States. But the facts are they are drafted as a bait to catch poor fish. We must not forget that the public and the medical profession are the fish. We must also remember that once a fish is on the hook he seldom ever gets loose in the pond again.

# THE JOURNAL

OF THE

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H. H. SHOULDERS, M.D., Editor and Secretary

DECEMBER, 1937

## EDITORIAL

### A LITTLE GLANCE BACKWARD AND FORWARD

Another year is ending. It might be worth while to pause and reflect upon the accomplishments of the year that is ending before starting on the efforts of a new year.

In the year that has passed threatening clouds have gathered and been dissipated in a large measure.

The usual number of people have appeared on the scene of publicity and propaganda and proposed their panaceas for the relief of all that ails humanity.

We have witnessed the appearance of those who proposed governmental measures of all sorts for the relief of the medical and surgical ills of humanity.

Others have appeared with proposals to relieve all that ails humanity from the standpoint of economics.

Of all the people that live, we doctors are in the best position of any to appraise the value of new proposals.

For many hundreds of years panaceas have been proposed for the relief of one or many of the ills that afflict humanity.

Doctors have been tolerant and skeptical. Doctors have not been quick to adopt new remedies until their worth has been demonstrated. This enlightened skepticism and this tolerance are responsible for the sound conservative progress of medicine through the years.

We have also witnessed the rise and the fall of collectivism in the practice of medicine. Lodge practice is an example of it,

and there are various forms in which it has appeared and disappeared.

We have witnessed the abandonment of schemes which appeared to be worthy from the standpoint of theoretical consideration.

We have been the observers of all the various schemes that have been adopted by countries throughout the world and we are still clinging to those things in practice which are true and tried. We will not stand for the adoption of schemes which have been tried and failed. We will cling to sound, steady progress under which the best medicine on earth is practiced in the United States.

If the present age is ever given a name, or designation, in our opinion it will be the "age of propaganda."

We must not forget that a lot of people have been highly educated at public expense in the last several years. A lot of people have been trained to write. The only thing these people know how to do is to write. Some of them have some laudable impulses to do good with their writing. The subject of "Welfare" has afforded a fine opportunity for outlet to the pent-up academic abilities and enthusiasm of such theoretically trained individuals.

Again, others are in the employment of agencies who seek to change our whole form of government and methods of living. Many of them would take out of life all of its flavor in an effort to make it a little bit longer—a thing which no individual with sound thinking would ever permit to be done.

Some of them would promote the idea of sacrificing all of liberty for the slight possibility of an increased longevity, forgetting, of course, that Americans have always been willing to sacrifice longevity for the sake of liberty with all the incentive and color it gives to living.

We have a feeling that the time is approaching when the public will be thoroughly disillusioned concerning the promises and assurances of propagandists, even though they parade under the banner of welfare. We have hope and faith.



### CHRISTMAS GREETING!

The headquarters staff wishes to express a word of greeting to the membership of the Tennessee State Medical Association.

Each member has made some contribution to each of the twelve issues of the JOURNAL that has gone to the membership this year.

In this, the last issue, will be found the membership roster and reading matter which we believe is of practical interest to every member.

There will also be found a cross index to all the material that has appeared in the JOURNAL during the year.

Each article is indexed as to subject and as to author.

We hope that our efforts have brought to you something of value.

We wish for each of you a prosperous New Year.

### CONCERNING THE ACTION OF A SELF-APPOINTED GROUP OF PHYSICIANS

The secretary-editor received a communication from Dr. John P. Peters, secretary to "a committee of physicians," early in November.

Attached to the letter were certain principles and proposals which had been drafted by the committee, and, in addition, there were the signatures of 430 doctors who had endorsed the principles and proposals.

In the letter it was requested that the matter be presented to the Tennessee State Medical Association for consideration.

It was presented to the Board of Trustees at a regular semiannual meeting, November 14, 1937.

The Board of Trustees considered and replied to this communication. The reply is found below. In addition to this, an analysis of the principles and proposals was presented to the board for consideration and was endorsed for publication in the JOURNAL. It appears in this issue of the JOURNAL under the heading, "An Analysis of Certain Principles and Proposals Drafted and Promulgated by a Self-Appointed Group of Doctors."

The letter follows:

"Dr. John P. Peters, Secretary,  
Committee of Physicians,  
789 Howard Avenue,  
New Haven, Connecticut.

"Dear Doctor Peters:

"Your letter dated November 3, together with the attached data, was submitted to the Board of Trustees of the Tennessee State Medical Association at a meeting held November 14, 1937.

"By unanimous action of the Board of Trustees we are instructed to inform you as follows:

"First, the Board of Trustees has received and considered 'certain principles and proposals' submitted by Dr. John P. Peters, secretary to a group of self-appointed medical men.

"We find that every essential element of these principles and proposals was considered by the House of Delegates of the American Medical Association in June, 1937.

"We find that these actions were published in the *Journal* of the A. M. A. under date of June 26, 1937.

"We also find that the same communication that was forwarded by Dr. Peters to the Tennessee State Medical Association for consideration was also submitted to the *New York Times* for immediate publication.

"We also find in the article published in the *New York Times* that this self-appointed group of doctors have classed themselves, or permitted themselves to be classed and designated, 'revolvers.'

"We also find that the statement of principles and proposals was designated in the aforesaid article as a 'declaration of independence' by the group of doctors, self-appointed, from the principles which govern organized medicine in the United States.

"We find ourselves, therefore, at a loss to know why an expression from organized medicine in Tennessee was desired by a group of doctors who have already declared themselves as being independent of, and revolvers from, the principles to which organized medicine in America subscribes.

"Notwithstanding these findings, we wish to express ourselves most respectfully as viewing these so-called principles and proposals as vague, deceptive, and dangerous.

"We view them also as a step, and a long step, in the direction of a communistic form of medicine in America which is repugnant to the organized profession of medicine and would be, in our opinion, disastrously injurious to the public we regard and serve.

"A glance at the list of doctors who have signed these principles and proposals indicates that a vast majority of them are salaried employees of endowed institutions.

"It is common knowledge that the income of these institutions from the investment of their endowment funds has diminished considerably.

"These facts lead us to suspect that these proposals may be motivated by a desire on the part of some of the signers to get federal aid to the funds from which they draw nice salaries.

"The profession of medicine is more interested in service to the indigent than we are in increasing and making secure the salaries of a few full-time men.

*Respectfully yours,*

"THE BOARD OF TRUSTEES OF THE TENNESSEE STATE MEDICAL ASSOCIATION."

#### CONCERNING THE SYPHILIS CAMPAIGN

The Liaison Committee has been charged with the duty of representing the medical profession in carrying forward the campaign now under way for the control of syphilis.

The committee has cooperated with the State Department of Health in the formulation of certain plans and policies.

One policy which has been announced by the State Department of Health, with the approval of the Liaison Committee, concerns the matter of furnishing medicine for indigent cases.

Another policy concerns the matter of education within the medical profession as regards the diagnosis and treatment of the disease.

Another concerns the matter of lay education on the subject.

On another page of this issue will be found a statement by the Liaison Committee concerning the campaign; also a statement by Dr. W. C. Williams concerning conditions under which free medicine may be

obtained and a schedule of treatment for uncomplicated and complicated, also the treatment for cases in children.

Syphilis is recognized today as a public health problem. It is also recognized that the cooperation of the profession of medicine with the executive health agencies is necessary to accomplish the purposes intended. The ends sought are worthy of the best efforts of all concerned. Organized medicine is doing its part.

## DEATHS

Dr. J. Sam Taylor, Clinton; Lincoln Memorial University, Medical Department, Knoxville, 1902; aged sixty; died November 24 after an illness of about two weeks.

## RESOLUTIONS

### DR. FRANCIS JOSEPH HACKNEY

Dr. Francis Joseph Hackney died at age sixty-five on the afternoon of Thursday, October 28, 1937, at his home in Clifton Hills, Chattanooga, Tennessee. He was born July 5, 1873, in Friendsville, Blount County, Tennessee.

He graduated in 1893 from Friendsville Academy, and then entered Maryville College for two years. This was followed by other educational advantages before he matriculated at the Hospital College of Medicine, Louisville, Kentucky, in 1897. He later entered the Medical Department of the University of the South and graduated from there in 1899 at age twenty-six. He located at Knoxville and practiced general medicine for a period of eight years. In 1908, and for three years thereafter, he thoroughly prepared himself by courses of study in various eye, ear, nose, and throat hospitals. He entered the practice of this specialty in Chattanooga in 1912. His license was recorded in this county on May 6, 1912.

Besides his membership in the local medical society, Dr. Hackney was a member of the state society, the American Medical Association, and was recently made a life member of the American Academy of Ophthalmology and Otolaryngology.

In his special field, for all these years, since 1912 until his death, Dr. Hackney has done an extensive practice, drawing his patients not only from Chattanooga, but from a large surrounding area. He was a skillful operator, and all his work was done in a thorough manner. He utilized every laboratory procedure and X-ray help possible, and has had a most unusually successful career. In his dealings with his patients and the public in general, he had a most pleasing personality and an affable, courteous disposition.

The present Hackney Infirmary was established in 1931. He did an immense amount of charity work in the clinics of this city and county, and he was a popular member of the Civitan Club.

His religious affiliation was with the Society of Friends at Knoxville, Tennessee.

Dr. Hackney married Miss Winifred Fowler, of Knoxville, in 1902, who survives him. Dr. Russell Hackney, of this city, is their only child.

*Therefore Be It Resolved*, That we, the members of the Chattanooga and Hamilton County Medical Society, greatly deplore the passing of Dr. Hackney. We know that he will be greatly missed and sincerely mourned by thousands of his friends and patients.

*Be It Further Resolved*, That we extend to his bereaved family our sincere sympathy and condolence, and that a copy of this preamble and these resolutions be spread upon our minutes, a copy be sent to the family of the deceased, and a copy be sent to the state society.

Approved, November 4, 1937.

E. A. GILBERT, *President*.

J. MARSH FRERE, *Secretary*.

FRED B. STOPP, *Chairman*.

E. S. BLAIR, M.D.

H. RENNER, M.D.

J. HAMILTON TAYLOR, M.D.

STANTON H. BARRETT, M.D.

J. B. MCGHEE, M.D.

S. A. FOWLER, M.D.

R. E. SHELTON, M.D.

H. V. LARIMORE, M.D.

*Committee*.

## NEWS NOTES AND COMMENTS

The American Board of Internal Medicine will hold its next written examination on Monday, February 14, 1938, in various centers of the United States and Canada.

For further particulars and application blanks address Dr. Walter L. Bierring, M.D., chairman, American Board of Internal Medicine, 1210, 406 Sixth Avenue, Des Moines, Iowa.

### 1938 AMERICAN MEDICAL ASSOCIATION ANNUAL SESSION

The Board of Trustees of the American Medical Association has appointed Dr. Howard Morrow of San Francisco as general chairman of the local committee on arrangements. Among other appointments of local subcommittees, Dr. Morrow has appointed Dr. F. C. Warnshuis, chairman of the local committee on hotels.

Fellows are requested to send in their requests for hotel accommodations to Dr. F. C. Warnshuis, Suite 2004, 450 Sutter Street, San Francisco, California, giving names of members in party, type of accommodations desired, time of arrival and departure.

Assignment of accommodations and their confirmation will be made for each reservation request. Do not write directly to any hotel, as *all* reservations will be cleared through the hotel committee.

Banquet rooms and special dinners reservations must be made through the hotel committee. The same rule applies to special boards and allied organizational groups.

San Francisco affords first-class hotels capable of providing accommodations for 15,000 fellows and members of their families. However, early reservations are requested to avoid confusion and to insure individual choice. A pleasing surprise awaits every fellow in the hotel accommodations of the Golden Gate City.

Those planning to visit San Diego, Los Angeles, Santa Barbara, Del Monte, Yosemite, or other California cities are urged to write in advance for hotel reservations in these cities. Following the American Medical Association Annual Session, the Rotary,



Kiwanis, and Shriners hold their annual sessions in California. It is quite probable that many of the members of these organizations will visit points of interest before their conventions, thereby creating heavy demands on local hotels throughout the state.

Application blanks are now available for space in the Scientific Exhibit at the San Francisco Session of the American Medical Association, June 13-17, 1938. The Committee on Scientific Exhibit requires that all applicants fill out the regular forms.

Application blanks may be obtained from the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

## WOMAN'S AUXILIARY

President-----Mrs. W. T. Black  
                                Memphis  
President-elect-----Mrs. H. E. Christenberry  
                                Knoxville  
Press and Publicity-----Mrs. B. F. Byrd  
                                Nashville

We are thinking this month of the Christmas season which is perhaps the most delightful of the year, and one which can easily be made the happiest. The English-speaking world has given unmistakable judgment in favor of a "Christmas Carol," by Charles Dickens, as the story which best illustrates the spirit which should prevail at Christmas time. For more than eighty years this little masterpiece has stirred the reading public, and in recent years thrilled and inspired radio listeners. Its characters are universal, and their experiences are common to all of us. We need constantly to be warned against the almost fatal blunder of Scrooge, and we owe ourselves the experience which would compel us to borrow Tiny Tim's joyous exclamation, "God bless us everyone." May your Christmas be a supremely happy one for you!

## DAVIDSON COUNTY

The auxiliary to the Nashville Academy of Medicine met Friday morning at 10:30 o'clock at the home of Mrs. Cleo Miller on

Shelton Avenue. The president, Mrs. Oscar Nelson, presided, and the program on *Hygieia* was directed by Mrs. J. D. Lester, national chairman. It was voted to hold future meetings at twelve o'clock instead of 10:30 o'clock as has been the custom with luncheon preceding the meeting.

ANDERSON COUNTY

The regular meeting of the Anderson County Medical Auxiliary was held November 16, 1937, at the home of Mrs. Horton DuBard in Norris.

After a social hour around the luncheon table, Mrs. Thomas Jennings presided over the business session.

Mrs. James S. Hall was appointed exhibit chairman for Anderson County to secure exhibits of old medical books, instruments, etc., for the permanent exhibit to be placed in Nashville.

The program consisted of a talk given by Mrs. Dings on "The Aims and Policies of a Medical Auxiliary." An interesting discussion followed, and the auxiliary voted to hold monthly meetings and to follow an outlined course of study.

MRS. JAMES S. HALL, *Secretary.*

## RUTHERFORD AND CANNON COUNTIES

A program on public health education featured the meeting of the Woman's Auxiliary to Stones River Academy of Medicine Friday, November, 19, at the home of Mrs. W. T. Robison. Miss Mary Hall was joint hostess. Mrs. Matt Murfree, chairman of the program committee, introduced the speaker, Mrs. H. H. Hudson. Mrs. M. B. McCrary, of Woodbury, the president, conducted the business session. At the conclusion of the program, the hostess served refreshments.

## KNOX COUNTY

The Woman's Auxiliary to Knox County Medical Society has held regular monthly meetings. The October meeting was held in the home of Mrs. H. E. Christenberry and the November meeting in the home of Mrs. A. A. Haun. Mrs. B. B. Cates is the president, and presided at the business meetings. Some of the high spots of their

fall and winter activities are sponsoring the sale of tickets for the freshman football game at the University of Tennessee, the proceeds to go to the Crippled Children's Hospital, and plans are complete for the Christmas party and gifts for the Crippled Children's Hospital and the Children's Ward at the Knoxville General Hospital.

Under the leadership of Mrs. H. E. Christenberry, local chairman of the Cancer Control Committee, a cancer control program, "What to Do About Cancer," will be presented at the January meeting in preparation for the membership drive which will be launched in February. *Hygeia* subscriptions will be supplied for all of the city schools and a number of the county schools. There will also be public health lectures and programs under the auspices of the auxiliary held in connection with the school program. An exhibit has been arranged on food facts for display during the meeting of the East Tennessee Teachers' Association. The auxiliary is sponsoring a prenatal clinic again this year at the Knoxville General Hospital. This clinic is held twice each week.

In October the program chairman presented Dr. Frank Whitacre of the University of Chicago and his topic was "Post-graduate Education." In November the guest speaker, Dr. W. A. Bois, addressed the membership on "Local versus Constitutional Treatment of Disease." This lecture proved to be one of unusual interest to the membership.

#### SHELBY COUNTY

Dear Auxiliary Members:

Have you ever witnessed such a short year as 1937? Your president has had the pleasure of attending the national board meeting in Chicago, November 19. It was all too short, being so very interesting. It was my earnest desire to write a form letter to each county president long ere this, but having carried on a most enjoyable correspondence with officers and committee chairmen throughout the year on various subjects, I feel that I have become better acquainted not only personally, but with each one's problems, have enjoyed the in-

formality and frankness of each writer and from this correspondence feel sure at the end of our year each department will have a full and gratifying report.

Let us not forget to work hard with our *Hygeia* subscriptions this month and also increase our membership—let our slogans be, not only "Every Member a *Hygeia* Subscriber," but "Every Doctor's Wife an Auxiliary Member."

My sincere Christmas greetings to each auxiliary member. Let us strive to help those less fortunate than ourselves by making this Christmas a cheery one, a merry one.

Fondly yours,  
FLORA M. BLACK.

### MEDICAL SOCIETIES

#### *Davidson County:*

November 9 — "Modern Problems in Neurosurgery," by Dr. Cobb Pilcher. Discussed by Dr. T. D. McKinney.

November 16—The Nashville Surgical Supply Company entertained the Davidson County Medical Society. The banquet was given at the Noel Hotel and enjoyed by two hundred fifty Nashville and Middle Tennessee doctors. Dr. Jack Witherspoon was toastmaster. The officers of the Nashville Surgical Supply Company were introduced. Mr. Henry Cooper gave a short address of welcome and the academy responded with an address by Dr. H. M. Tigert. The Vanderbilt coaching staff was present and presented pictures of the Vanderbilt-L. S. U. and Vanderbilt-Tennessee games. A number of valuable prizes were awarded. The lucky numbers and each guest present were presented with a number of favors.

November 23—"The Effects of the Carotid Sinus on the Cardiovascular System," by Dr. Wm. R. Cate. Discussion opened by Dr. Tinsley Harrison.

November 30—"Internal Fixation of a Fracture of the Hip—Slide Demonstration of Operation and Results," by Dr. E. M. Regen. Discussion opened by Dr. R. W. Billington.

"Case Report: Fibromyxoma of Meso-

sigmoid," by Dr. J. T. Hart, Columbia. Discussed by Dr. N. S. Shofner.

December 7—"Case Report: Acute Hemorrhagic Pancreatitis," by Dr. Wm. R. Cate. Discussion opened by Dr. W. H. Witt.

Election of officers for the coming year will be on December 14. Nominations were made by the Board of Directors and other nominations must be made December 7.

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*Dyer, Lake, and Crockett Counties:*

The Dyer, Lake, and Crockett Counties Medical Society was guest at a banquet given by the Baird-Brewer General Hospital on December 1 in the hospital dining room. The society is indebted to the hospital for a most delightful feast. Fifty were present.

Immediately after the banquet the society met in regular monthly session. The following officers were elected to serve for 1938:

President, Dr. J. O. McKinney, Friendship; secretary, Dr. C. L. Denton, Dyersburg; vice-president, Dyer County, Dr. J. E. Frazier, Newbern; vice-president, Lake County, Dr. J. P. Moon, Tiptonville; vice-president, Crockett County, Dr. W. H. Stallings, Friendship; board of censors, Dr. N. S. Walker, Dyersburg; Dr. R. W. Griffin, Tiptonville; Dr. J. O. McKinney, Friendship. Representatives to State Medical Society and alternates, Dyer County, Dr. J. D. Brewer, Dyersburg; Dr. J. Paul Baird, Dyersburg; Lake County, Dr. W. L. Sumners, Ridgely; Dr. J. P. Moon, Tiptonville; Crockett County, Dr. W. H. Stallings, Friendship; Dr. J. O. McKinney, Friendship.

The following scientific program was presented:

"Head Injuries," Dr. J. P. Baird, Dyersburg.

"Vitamins and Vitamin Deficiency Diseases," Dr. Conley Sanford, Memphis.

Adjourned in usual manner.

C. L. DENTON, *Secretary*.

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*Hardin, Lawrence, Lewis, Perry, and Wayne Counties:*

The Five-County Medical Society met in Lawrenceburg on November 30. The following papers were read:

"Some Clinical and Experimental Notes on the Use of Mapharsan," by Dr. J. C. Hume, Savannah.

"Unrecognized Thyrotoxicosis in Association with Other Common Forms of Heart Disease," by Dr. William R. Cate, Nashville. Dr. W. E. Boyce, Flatwoods, opened the discussion.

"Cutaneous Burns," by Dr. J. H. Tilley, Lawrenceburg.

"Cancers of the Colon and of the Uterus with Case Reports," by Dr. C. S. McMurray, Nashville.

The following officers were elected for 1938:

Dr. J. T. Keeton, Clifton, president. For vice-presidents, Drs. Henry N. Moore, Savannah, Hardin County; Leo Harris, Lawrenceburg, Lawrence County; Paul Wiley, Hohenwald, Lewis County; W. E. Turner, Lobelville, Perry County; D. L. Woods, Waynesboro, Wayne County. Dr. O. H. Williams, Savannah, was reelected secretary.

Delegates to the meeting in April, 1938: Dr. O. H. Williams, Savannah, and Dr. Paul Wiley, Hohenwald, as alternate.

It was voted to meet in Waynesboro each month of 1938 on the last Tuesday in each month. The next meeting will be held on January 25, 1938.

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*Knox County:*

November 9—"Fractures of the Femur," by Dr. Jarrell Penn. Discussed by Drs. Patterson, Bagwell, and S. R. Miller.

November 16—"Some Observations of Childhood Tuberculosis," by Dr. Oliver W. Hill. Discussed by Drs. Joe T. Smith, J. B. Naive, Gilbert Eblen, and Oliver Hill, Jr.

November 23—"Radium in Dermatology," by Dr. A. H. Lancaster. Discussed by Drs. McCampbell and Haun.

November 30—"Fungus Diseases of the Pulmonary System," by Dr. Rufus Smith. Discussed by Drs. Glen Grubb and R. B. Wood.

December 7—"Recent Advances in the Understanding of the Causation of Hypertensive States," by Dr. Tinsley R. Harrison, Nashville.



## LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. Geo. C. Williamson, Columbia.  
 Vice-President for West Tennessee—Dr. F. K. West, Rossville.  
 Vice-President for Middle Tennessee—Dr. Jack Witherspoon, Nashville.  
 Vice-President for East Tennessee—Dr. Andrew Smith, Knoxville.  
 Secretary—Editor—Dr. H. H. Shoulders.  
 Assistant Secretary—Editor—Dr. W. M. Hardy.

## TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville.  
 Dr. A. F. Cooper, Goodwyn Institute Building, Memphis.  
 Dr. E. R. Zemp, Walnut Street, Knoxville.  
 Dr. Franklin B. Bogart, Medical Arts Building, Chattanooga.  
 Dr. W. L. Williamson, 915 Madison Ave., Memphis.

## COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.  
 Second District—Dr. S. R. Miller, Knoxville.

Third District—Dr. Hiram A. Laws, Jr., Chattanooga.  
 Fourth District—Dr. J. T. Moore, Algood.  
 Fifth District—Dr. John W. Sutton, Petersburg.  
 Sixth District—Dr. H. S. Shoulders, Nashville.  
 Seventh District—Dr. C. D. Walton, Mt. Pleasant.  
 Eighth District—Dr. J. R. Thompson, Jackson.  
 Ninth District—Dr. E. H. Baird, Dyersburg.  
 Tenth District—Dr. W. B. Burns, Memphis.  
 Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

Delegates to the American Medical Association—  
 Dr. E. G. Wood, Knoxville; East Tennessee.  
 Dr. H. H. Shoulders, Nashville; Middle Tennessee.  
 Dr. H. B. Everett, Memphis; West Tennessee.

## Alternates—

Dr. E. T. Newell, Chattanooga; East Tennessee.  
 Dr. J. O. Manier, Nashville; Middle Tennessee.  
 Dr. E. C. Ellett, Memphis; West Tennessee.

## OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	VICE PRESIDENT	SECRETARY-TREASURER
Anderson.....	H. D. Hicks, Clinton.....	J. Sam Taylor, Clinton.....	I. S. Hall, Clinton
Bedford.....	James W. Reed, Belfast.....	James N. Burch, Shelbyville.....	W. B. Barton, Briceville, Assoc. Sec.
Blount.....	H. A. Calloway, Maryville.....	G. D. Lequire, Maryville.....	W. H. Avery, Shelbyville
Bradley.....	J. Lake McClary, Cleveland.....	W. C. Stansberry, Cleveland.....	W. C. Crowder, Maryville
Campbell.....	G. B. Brown, Jellico.....	R. W. Lewis, Westbourne.....	C. H. Taylor, Cleveland
Carroll.....	E. W. Hillsman, Trezevant.....	A. R. Collins, Watauga Valley.....	R. J. Buckman, LaFollette
Carter.....	O. F. Agee, Elizabethton.....		J. H. Williams, McKenzie
Chester, Henderson, and Decatur.....	H. T. Pitts, Henderson.....		E. T. Pearson, Elizabethton
Cooke.....	J. E. Hampton, Newport.....	W. C. Ruble, Newport.....	L. C. Smith, Henderson
Cumberland.....	E. W. Mitchell, Crossville.....	T. D. McKinney, Nashville.....	Fred M. Valentine, Newport
Davidson.....	Jack Witherspoon, Nashville.....		V. L. Lewis, Crossville
Dickson.....	L. F. Loggin, Charlotte.....	B. G. Marr, Dyersburg (Dyer)	J. P. Gilbert, Nashville
Dyer, Lake, Crockett.....	J. P. Baird, Dyersburg.....	W. L. Sumner, Ridgely (Lake)	R. P. Beasley, Dickson
		J. O. McKinney, Friendship (Crockett)	C. L. Denton, Dyersburg
Fayette and Hardeman.....	L. D. Pope, Grand Junction.....	F. K. West, Rossville.....	Wiley D. Lewis, Bolivar
Fentress.....	C. A. Collins, Wilder.....	A. H. Crouch, Forbus.....	J. P. Sloan, Jamestown
Franklin.....	Alfred Parker Smith, Winchester.....	Geo. E. Bogart, Sherwood.....	John M. Hardy, Sewanee
Gibson.....	H. P. Clemmer, Milan.....	J. W. Allen, Rutherford.....	F. L. Roberts, Trenton
Giles.....	J. G. Waldrop, Lewisburg.....	A. W. Deane, Pulaski.....	T. F. Booth, Pulaski
Greene.....	W. T. Mathes, Greeneville.....	M. A. Blanton, Mosheim.....	I. E. Phillips, Greeneville
Grundy.....	U. B. Bowden, Pelham.....	O. H. Clements, Palmer.....	T. F. Taylor, Monteagle
Hamblen.....	W. E. Howell, Morristown.....	R. A. Purvis, Morristown.....	P. L. Henderson, Morristown
Hamilton.....	E. A. Gilbert, Chattanooga.....	A. M. Patterson, Chattanooga.....	J. Marsh Frere, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne.....	Otis Whitlow, Savannah.....	J. V. Hughes, Savannah (Hardin)	O. H. Williams, Savannah
		V. H. Crowder, Lawrenceburg (Lawrence)	
		Paul Wylie, Hohenwald (Lewis)	
		J. W. Frost, Linden (Perry)	
		J. T. Keeton, Clifton (Wayne)	
Haywood.....	F. P. Hess, Bells.....	John P. Shearon, Gates.....	Roy M. Lanier, Brownsville
Henry.....	A. F. Paschall, Puryear.....	R. J. Perry, Springville.....	R. Graham Fish, Paris
Hickman.....	L. F. Pritchard, Only.....	C. V. Stephenson, Centerville.....	W. K. Edwards, Centerville
Humphreys.....			W. W. Slayden, Waverly
Jackson.....	J. D. Quarles, Whitleyville.....	C. E. Reeves, Gainesboro.....	Jesse C. Hill, Knoxville
Knox.....	Henry Clay Long, Knoxville.....	A. R. Garrison, Byington.....	Thos. E. Miller, Ripley
Lauderdale.....	J. R. Lewis, Ripley.....	J. H. Nunn, Ripley.....	M. F. Brown, Fayetteville
Lincoln.....	R. E. McCown, Fayetteville.....	R. T. Odum, Fayetteville.....	J. R. Watkins, Loudon
Loudon.....	Halbert Robinson, Lenoir City.....	J. A. Mourfield, Lenoir City.....	J. Y. Freeman, Lafayette
Macon.....	D. D. Howser, Lafayette.....	John E. Powers, Jackson.....	S. M. Herron, Jackson
Madison.....	J. C. Pierce, Mercer.....	C. O. Fowler, Spring Hill.....	D. B. Andrews, Columbia
Maury.....	H. C. Busby, Columbia.....	R. S. Perry, Columbia, R. F. D.	D. F. Seay, Englewood
McMinn.....	Boyd McClary, Etowah.....		H. C. Sanders, Selmer
McNairy.....	John R. Smith, Selmer.....		David M. Cowgill, Madisonville
Monroe.....	R. C. Kimbrough, Madisonville.....	M. L. Shelby, Clarksville.....	I. E. Hunt, Clarksville
Montgomery.....	Paul E. Wilson, Clarksville.....	F. B. Kimzey, Union City.....	W. B. Harrison, Union City
Obion.....	M. T. Tipton, Union City.....		A. B. Qualls, Livingston
Overton.....			F. O. Geisler, Isabella
Polk.....	A. W. Lewis, Copperhill.....	H. P. Hyde, Copperhill.....	Thurman Shipley, Cookeville
Putnam.....	W. A. Howard, Cookeville.....	R. L. Witherington, Cookeville.....	W. W. Hill, Harriman
Roane.....	J. C. Fly, Kingston.....	L. A. Killeffer, Harriman.....	J. E. Wilkinson, Springfield
Robertson.....	E. W. Adair, Springfield.....	John F. Cason, Murfreesboro.....	Milford Thompson, Oneida
Rutherford.....	T. J. Bratton, Woodbury.....	John F. Phillips, Robbins.....	H. A. Saubert, Sevierville
Scott.....	D. T. Chambers, Norma.....		A. F. Cooper, Memphis, Secretary
Sevier.....			J. H. Francis, Memphis, Treasurer
Shelby.....	M. W. Searight, Memphis.....	E. G. Kelly, Memphis.....	Thayer S. Wilson, Gordonsville
	J. J. Hobson, Memphis, President-Elect		T. R. Bowers, Bristol
Smith.....	W. B. Dalton, Gordonsville.....	W. F. Boze, Carthage.....	
Sullivan, Johnson.....	J. A. Delaney, Bristol.....	Fred M. Duckwell, Kingsport (Sullivan)	
		J. R. Butler, Mountain City (Johnson)	
Sumner.....	J. M. Oliver, Portland.....	C. H. Donoho, Portland.....	W. M. Dedman, Gallatin
Tipton.....	A. J. Roby, Covington.....	J. J. Fleming, Atoka.....	H. C. Currie, Covington
Warren.....	John S. Harris, McMinnville.....	E. L. Moneymham, Rock Island.....	John T. Mason, McMinnville
Washington.....	E. T. Brading, Johnson City.....	G. J. Budd, Johnson City.....	Carroll H. Long, Johnson City
Weakley.....	J. E. Taylor, Dresden.....	T. W. Jones, Martin.....	P. W. Wilson, Dresden
White.....	J. C. Blankenship, Sparta.....	A. A. Bradley, Cookeville, Route 3.....	A. F. Richards, Sparta
Williamson.....	J. Knox Galloway, Franklin.....	W. F. Roth, Jr., Franklin.....	K. S. Howlett, Franklin
Wilson.....	M. H. Wells, Watertown.....	R. N. Buchanan, Jr., Lebanon.....	R. B. Gaston, Lebanon

## COMMITTEES

The following is a list of the standing committees of the Tennessee State Medical Association provided for in the constitution and by-laws and appointed by the proper authority, together with some special committees appointed under the authority of a resolution by the House of Delegates.

Some of the committees are appointed for a definite period. In such instances the appointment of the committeeman expires with the meeting of the House of Delegates in the year stated opposite his name.

### COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville.  
Dr. A. F. Cooper, Memphis.  
Dr. Frank Harris, Chattanooga.  
Dr. A. H. Lancaster, Knoxville.

### STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop.  
Dr. O. N. Bryan, Nashville.  
Dr. C. M. Oberschmidt, Memphis.  
Dr. J. L. Hamilton, Chattanooga.

### HOSPITAL COMMITTEE

Dr. D. R. Pickens, Chairman, Nashville.  
Dr. E. H. Baird, Dyersburg.  
Dr. E. A. Gilbert, Chattanooga.  
Dr. E. G. Wood, Knoxville.  
Dr. H. B. Everett, Memphis.  
Dr. Lee K. Gibson, Johnson City.

### COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. L. W. Edwards, Chairman, Nashville (1939).  
Dr. E. W. Coker, Memphis (1941).  
Dr. Battle Malone, Memphis (1940).  
Dr. Tom Barry, Knoxville (1938).  
Dr. T. R. Ray, Shelbyville (1942).

### LIAISON COMMITTEE

Dr. W. C. Dixon, Chairman, Nashville (1941).  
Dr. W. P. Wood, Knoxville (1940).  
Dr. Hiram A. Laws, Chattanooga (1939).  
Dr. Tom Mitchell, Memphis (1938).  
Dr. Tom R. Barry, Knoxville (1942).

### COMMITTEE ON INSURANCE

Dr. A. F. Cooper, Chairman, Memphis.  
Dr. C. M. Hamilton, Nashville.  
Dr. S. R. Miller, Knoxville.

### COMMITTEE ON MEDICAL DEFENSE

Dr. S. R. Miller, Chairman, Knoxville.  
Dr. H. B. Everett, Memphis.  
Dr. H. M. Tigert, Nashville.

### ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. B. F. Byrd, Chairman, Nashville.  
Dr. Oliver Hill, Knoxville.  
Dr. Percy Wood, Memphis.

### COMMITTEE ON EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1940).  
Dr. R. B. Wood, Knoxville (1938).  
Dr. D. W. Smith, Nashville (1940).  
Dr. H. B. Gotten, Memphis (1938).  
Dr. W. O. Baird, Henderson (1939).  
Dr. J. M. Lee, Nashville (1939).

### COMMITTEE ON MEMOIRS

Not filled.  
Dr. H. Quigg Fletcher, Chattanooga.  
Dr. E. L. Ellis, Maryville.  
Dr. L. J. Lindsey, Covington.  
Dr. B. T. Nolen, Franklin.

### COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis.  
Dr. M. S. Lewis, Nashville.  
Dr. H. P. Hewitt, Chattanooga.  
Dr. Andrew Smith, Knoxville.  
Dr. C. W. Friberg, Johnson City.  
Dr. L. C. Harris, Lawrenceburg.  
Dr. D. T. Holland, Newbern.  
Dr. J. E. Powers, Jackson.

### COMMITTEE ON CHILD WELFARE

Dr. W. D. Anderson, Chairman, Chattanooga.  
Dr. Oliver Hill, Knoxville.  
Dr. Frazier Binns, Nashville.  
Dr. W. D. Mims, Memphis.

### CANCER COMMITTEE

Dr. Ralph Monger, Chairman, Knoxville.  
Dr. S. J. Sullivan, Cleveland.  
Dr. Howard King, Nashville.  
Dr. H. S. Shoulders, Nashville.  
Dr. J. W. McClaran, Jackson.  
Dr. Frank Smythe, Memphis.

### COMMITTEE ON PHYSICAL THERAPY

Dr. R. W. Billington, Chairman, Nashville.  
Dr. A. M. Patterson, Chattanooga.  
Dr. Robert Patterson, Knoxville.  
Dr. A. H. Meyer, Memphis.  
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### COMMITTEE ON POSTGRADUATE INSTRUCTION IN OBSTETRICS

Dr. Jas. R. Reinberger, Chairman, Memphis.  
Dr. Franklin B. Bogart, Chattanooga.  
Dr. O. W. Hyman, Memphis.  
Dr. John M. Lee, Nashville.  
Dr. J. O. Manier, Nashville.  
Dr. W. L. Williamson, Memphis.  
Dr. John B. Youmans, Nashville.

## OTHER MEDICAL SOCIETIES

The Middle Tennessee Medical Society held its eighty-sixth semiannual meeting in Dickson, November 18 and 19.

The program was as follows:

"Internal Fixation in Fractures of Hip—Lantern Slides," by Dr. E. M. Regen, Nashville. Discussed by Drs. Matt Murfree, Murfreesboro, and George Carpenter, Nashville.

"Diagnosis and Treatment of Nephritis," by Dr. Price Womack, Shelbyville. Discussed by Drs. R. S. Perry, Columbia, and W. H. Witt, Nashville.

"Magnesium Sulphate," by Dr. S. C. Cowan, Nashville. Discussed by Drs. Joe B. Wright, Lynnville, and M. S. Lewis, Nashville.

"Hysterectomy," by Dr. Richard Barr, Nashville. Discussed by Drs. T. R. Ray, Shelbyville, and H. M. Tigert, Nashville.

Presidential address by Dr. C. M. Hamilton, Nashville.

"Sulfanilamide," by Dr. O. N. Bryan, Nashville. Discussed by Drs. J. S. Freeman, Springfield, and J. O. Manier, Nashville.

"Evipal," by Dr. R. B. Gaston, Lebanon. Discussed by Drs. J. F. Adams, Woodbury, and Theodore Morford, Nashville.

"Management of Stones in Upper Urinary Tract," by Dr. J. C. Pennington, Nashville. Discussed by Drs. T. A. Patrick, Fayetteville, and Henry Douglass, Nashville.

"Unusual Ovarian Tumor," by Drs. N. S. Shofner and Herman Spitz, Nashville. Discussed by Drs. V. H. Griffin, Clarksville, and W. C. Dixon, Nashville.

"Cerebral Manifestations of Heart Disease," by Dr. William R. Cate, Nashville. Discussed by Drs. E. M. Fuqua, Pulaski, and D. W. Hailey, Nashville.

"Treatment Colles Fracture and Fractures of the Neck and the Femur," by Dr. Duncan Eve, Jr., Nashville. Discussed by Drs. W. J. Sugg, Dickson, and R. W. Billington, Nashville.

"A Few Cases of Plastic Surgery of Interest to the General Practitioner," by Dr. Beverly Douglas, Nashville. Discussed by

Drs. C. C. Stockard, Lawrenceburg, and M. B. Davis, Nashville.

"Acute Upper Respiratory Infections in Children," by Dr. Frazier Binns, Nashville. Discussed by Drs. J. R. Gott, Murfreesboro, and John M. Lee, Nashville.

THE AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY, INC.

SOUTHERN SECTION MEETING

MONDAY, JANUARY 24, 1938

GEORGIAN TERRACE HOTEL, ATLANTA, GEORGIA

*Promptly at 9:00 A.M.*

1. Welcome address by Carl C. Aven, M.D., president, Fulton County Medical Society, Atlanta, Georgia. (By invitation.)

2. Introduction of the president.

3. "The Treatment of Chronic Infections of the Ear," by Samuel J. Kopetzky, M.D., New York, New York.

4. "Spinal Rhinorrhea with Autopsy Report," by John J. Shea, M.D., Memphis, Tennessee.

5. "Thrombophlebitis of the Lateral Sinus," by Claude C. Cody, Jr., M.D., Houston, Texas.

6. "A Clinical Note on the Treatment of Chronic Suppurative Otitis Media," by Robin Harris, M.D., Jackson, Mississippi.

7. "Further Experiences with Acute Tracheobronchitis in Children," by Lyman G. Richards, M.D., Boston, Massachusetts.

*12:30 P.M.*

Chairman's luncheon at Georgian Terrace Hotel. Compliments of Dr. Murdock Eucken to all members and guests.

*1:30 P.M.*

8. Business meeting.

9. "Laryngectomy—One Stage," by Waitman F. Zinn, M.D., Baltimore, Maryland.

10. "Surgical and Therapeutic Aspects of Bronchiectasis with Clinical Observations on Bronchial Lavage by the Stitt Method," by Verling K. Hart, M.D., Charlotte, North Carolina.

11. "Bronchoscopic Studies," by Porter P. Vinson, M.D., Richmond, Virginia.

12. "The Management of Intractable Pansinusitis—(Motion Pictures)," by Wil-



liam A. Wagner, M.D., New Orleans, Louisiana. (By invitation.)

Cocktail hour at Georgian Terrace Hotel. Compliments of the Atlanta Eye, Ear, Nose, and Throat Society to all members and guests.

ABSTRACTS OF PAPERS PRESENTED AT VANDERBILT MEDICAL SOCIETY MEETING,  
NOVEMBER 5, 1937

1. Case Report: "Acute Yellow Atrophy of the Liver in Pregnancy with Recovery," by Dr. Claud D. Johnson.

White female, forty-three, para twelve, was admitted to hospital thirty-six hours post-partum. Three weeks prior to admission she had influenza, followed by headaches, swelling of feet, spots before the eyes, nausea, and vomiting in succession. Epigastric pain and slight jaundice were noticed immediately prior to onset of labor. Following delivery patient developed alternating maniacal and comatose episodes. Examination on admission revealed patient comatose, deeply jaundiced, liver dullness greatly diminished; leucine crystals present in urine; blood sugar fifty; icterus index fifty; conjugated phenol nothing. Patient was given intravenous glucose containing calcium gluconate, colonic irrigations, caffeine sodium benzoate. After five days began to improve and was given daily transfusions. Developed *B. coli* septicemia on thirteenth day, but continued to improve and was discharged two months after admission.

2. "Infection of the Chick Embryo with *B. Influenzae* and with *B. Pertussis*," by Dr. Mae Gallavan.

In investigating the role of *H. pertussis* in whooping cough, *H. influenzae* was also studied because the organisms are frequently associated and are difficult to differentiate. The Goodpasture method of chorio-allantoic inoculation of the chick embryo was used. With *H. influenzae*, six of the 119 embryos studied showed a meningitis, encephalitis, and ependymitis, whereas with *H. pertussis* one embryo developed all the pulmonary lesions of human whooping cough—numerous bacilli between the respiratory cilia with necrosis and infiltration of the underlying nonciliated epithelial cells

and an interstitial bronchopneumonia. No other lesions were found in either series. By inoculating *H. pertussis* into the amnion of an embryo with ciliated epithelium the whooping cough picture can be reproduced.

This paper was discussed by Drs. E. W. Goodpasture and Katherine Dodd.

3. "Nor-epinephrine as a Possible Mediator in the Sympathetic Division of the Autonomic Nervous System," by Drs. C. M. Greer, J. O. Pinkston, J. H. Baxter, Jr., and E. S. Brannon. Paper presented by Dr. C. M. Greer.

The development of the concept of chemical mediation in the sympathetic division of the autonomic nervous system was discussed briefly with particular reference to the evidence of Cannon and Rosenblueth that there are two "sympathins."

The responses, evoked by liver nerve stimulation, of certain effector systems in the cat under Dial (Ciba) anesthesia were compared with those induced by epinephrine and nor-epinephrine.

It was suggested, as a tentative working hypothesis, that there are at least two "adrenergic" mediators, one resembling epinephrine and the other resembling nor-epinephrine very closely.

This paper was discussed by Drs. Paul Lamson, W. E. Garrey, and Sam L. Clark.

## PUBLIC HEALTH ACTIVITIES IN TENNESSEE

An interesting report on the immunity status of school children was recently received from a private physician who has been interested in getting more children protected against smallpox, diphtheria, and typhoid fever. A survey of thirty schools having an enrollment of approximately 3,000 pupils revealed the following:

Nine and four-tenths per cent had been vaccinated against smallpox.

Thirty-six per cent had received typhoid vaccine within three years.

Thirty-two per cent had received an immunizing agent against diphtheria.

The 1936 typhoid death rate in this county was 8.9 as compared to the state rate of 5.3. The diphtheria rate was 8.9 as com-

pared to the state rate of 5.8. No cases or deaths from smallpox were reported.

It is probable that these percentages of children protected are greater than will be found in the average rural county of the state that does not have a full-time health service. If the school age group has such a small percentage of children protected, we can, in the light of experience elsewhere, say with some reasonable degree of certainty that a very much smaller percentage of the preschool group is protected against these diseases.

Perhaps the most remarkable aspect of this study is that these diseases are not even more prevalent. The general child population is not sufficiently protected against diphtheria to prevent a widespread epidemic. The improvement of public water supplies and environmental living conditions has done much to control typhoid—these are the permanent methods of typhoid control. These communities are a veritable powder keg should smallpox be introduced and more particularly should it first appear as a case erroneously diagnosed as chicken pox.

It is of more than passing interest to know that private physicians are beginning to analyze these problems and plan to reduce them. The more active this interest, the greater will be the reduction in human illness and death from these preventable causes.

An analysis of the morbidity reports prepared by the Tennessee Health Department reveal that fourteen cases of smallpox were reported in Tennessee during November. These cases were reported from four widely separated areas. In two areas the source, according to investigators, was of extra-state origin; in one, the source was of intra-state origin, but some 150 miles removed from the original source of contact; in the other, the source was unknown. These findings clearly point out the possibility of rapid dissemination of smallpox due to present-day transportation facilities and the need of more universal vaccination against the disease. Dr. Williams, commissioner of public health of Tennessee, in discussing the situation, stated: "I hope every practicing physician will consider himself a local health officer and see that

the need for smallpox vaccination is called to the attention of every family in his clientele and that smallpox vaccination is made a part of the family service."

The Department of Health reports a pleasing response to the circular letter which was recently mailed to every physician in the state, enclosing an outline for the treatment of different types of syphilis cases and the conditions under which treatment materials could be procured from the state or local health departments. *Have you read your letter?*

## ABSTRACTS OF CURRENT LITERATURE

### ANESTHESIA

By HUGH BARR, M.D.  
Medical Arts Building, Nashville

Postoperative Respiratory Complication. Rovenstine and Taylor. American Journal of Medical Sciences, June, 1936.

In a series of 7,874 anesthetics comprising ethylene, nitrous oxide, ether, tribromethanol, procain, and cyclopropane, the following postoperative respiratory complications were noted: pneumonia, forty-nine cases, or .6 per cent; massive collapse, thirteen, or .2 per cent; partial collapse, twenty-two, or .3 per cent; bronchitis, twenty-two, or .3 per cent; laryngitis, 114, or 1.8 per cent; and 360 had some cough, but no definite pulmonary lesions.

These respiratory complications occurred most frequently in the months that these diseases are most prevalent. Existing respiratory affections seem to predispose to these complications.

Ether compared favorably with other anesthetics with the exception of spinal and infiltration anesthesia. The deeper grades of narcosis and those of longer duration resulted in more morbidity.

Reduction of respiratory complications does not rest on the sturdiness of the patient, the skill of the operator or the choice of the anesthetic, but the skill of the anesthetist.

### DERMATOLOGY

By E. E. BROWN, M.D.  
Doctors Building, Nashville

Experimental Vaginal and Cutaneous Moniliasis—A Clinical and Laboratory Study of Certain Monilias Associated with Vaginal, Oral, and Cutaneous Thrush. P. Brooke Bland, M.D., A. E. Rakoff, M.D., and I. J. Pincus, M.D., Philadelphia. Archives of Dermatology and Syphilology, October, 1937.

The authors have confirmed the findings of Hesselstine, Borts, and Plass in that Monilia causes an

infection of the vagina and vulva, and may also be associated with oral and cutaneous thrush.

Thirty-eight pregnant and twelve nonpregnant women were inoculated. The pregnant women were selected from patients regularly attending the ante-partum clinic. The nonpregnant group consisted of women whose pregnancy had terminated three or more months before the time of inoculation.

The results are tabulated and confirm the pathogenicity of certain strains of *Monilia* from the human vagina. It was also found that the gravid woman was more susceptible than the nongravid woman. The gravid "one" was more susceptible than the gravid "two or three." The patient with a scant discharge was more susceptible than the one with a moderate or profuse discharge. The white female was more susceptible than the Negro. Their results showed that from the latter part of the first trimester to the end of gestation the susceptibility was about the same.

Vulvovaginitis was produced in twenty-nine of fifty women inoculated with pure cultures of *Monilia* of vaginal origin, thirty-eight pregnant and twelve nonpregnant. By inoculation of similar groups of twelve pregnant and twelve nonpregnant women with the same strains of *Monilia* it was demonstrated that pregnancy is a predisposing cause of Monilial vulvovaginitis. The increase of glycogen content of the vaginal mucosa which occurs during pregnancy is regarded as the fundamental factor in producing a favorable medium for the growth of *Monilia* in the vagina of pregnant women.

Variations in the age within the childbearing period did not influence the percentage of successful inoculations.

Leukorrhea due to various causes was an inhibiting factor in the production of vaginal Moniliasis. The incubation period varied from twenty-four to ninety-six hours. The average period of incubation was thirty-nine hours.

Thrush involvement of neighboring cutaneous surfaces occurred in five of the fifty women inoculated. The cutaneous lesions appeared only in the patients with severe vaginal infections and consisted of hypertrophic marginated papules covered with soggy white scales, together with pin-point vesicles and pustules.

Successful inoculations resulted from the introduction of *Monilias* isolated from patients without signs or symptoms of Moniliasis as well as from that or organisms obtained from patients with severe infections. A higher percentage of infections, however, was obtained with *Monilias* from the more virulent infections.

Inoculation into the vaginae of twelve pregnant women of three strains of *Monilia* isolated from typical lesions of oral thrush produced Moniliasis in seven instances. Cutaneous involvement was noted in one instance. It is concluded that the organisms of vaginal Moniliasis and those of oral thrush are of a similar degree of pathogenicity.

The inoculations proved to be pathogenic in 83.3 per cent of the pregnant and 33.3 per cent of the nonpregnant women. *Monilia* that was nonpathogenic was found in a number of cases in both pregnant and nonpregnant women.

## INTERNAL MEDICINE

By R. B. WOOD, M.D.

By D. R. THOMAS, M.D.

Medical Arts Building, Knoxville

Postoperative Treatment of Nasal Polypi for Prevention of Recurrence. J. Coleman Scal, M.D., F.A.C.S. *The Eye, Ear, Nose, and Throat Monthly*, November, 1937.

Preventing the recurrence of nasal polypi following the removal has always been a problem interesting to the rhinologist. The etiology of nasal polypi is described by the author as of an inflammatory nature originating from an oedematous mucous membrane with an underlying osteomyelitis or periostitis of the bone.

They may originate in any portion of the nose or accessory sinuses, but usually in the middle meatus.

They are classified by Lyons as myxoma, adenomyxoma, fibromyxoma, and fibroma. They must have as their foundation the presence of a chronic sinus disease. There is a thickening of the mucous membrane with an infiltration of leukocytes, followed by an oedema of the stroma with resultant vascular changes. Osteomyelitis and periostitis of the underlying bone is always present. There is a degeneration and elimination of the fibrous, muscular, bascular, and glandular structures which result in the formation of a nasal polypi.

The author recommends the removal of these polypi with a cold snare. He refers to Sinsky's report of the removal of nasal polypi with a high frequency current, but for various reasons does not recommend this procedure.

The author's method of removal of the polypi does not differ from the methods of the average rhinologist. Following the removal, if there is extensive hemorrhage, it is treated with a high frequency unit and a current of about 1,500 milliamperes for two or three seconds. In two to four days following the removal of the nasal polypi the application of radium is commenced.

After using three to five per cent cocaine solution with adrenalin, a brass capsule containing fifty milligrams of radium element, properly screened, covered with dental rubber and lubricated with vaseline, is placed high up in the nares against the site of the origin of the polypi and kept in place by a cotton tampon. A strong thread is attached to the capsule and around the ear to prevent loss of the capsule by swallowing. This capsule is kept in the nose for two hours. Two applications, one week apart, are applied to each nostril.

The author reports interesting cases and recommends this procedure as more effective in the pre-



vention of the recurrence of nasal polypi than other methods. He finds that a dose of 200 to 300 milligram hours to each nostril is sufficient to prevent polypi recurrence.

### OBSTETRICS AND GYNECOLOGY

By HAMILTON V. GAYDEN, M.D.  
Suite 234 Doctors Building, Nashville

The Conservative Treatment of Premature Separation of the Normally Implanted Placenta. Frederick C. Irving. *American Journal of Obstetrics and Gynecology*, 34: 881, November, 1937.

Three hundred fifty-three patients with premature separation of the placenta were admitted to the Boston Lying-in Hospital the past twenty-one years, all beyond the twenty-eighth week of pregnancy. Of these 234 had external hemorrhage, while 119 had internal hemorrhage.

In 170 patients with external hemorrhage delivered through the pelvis by simple means there were no deaths. There were thirty cases treated by Cesarean section, the death rate being 3.3 per cent in this group. The fact that only 2.4 per cent of cases delivered through the pelvis received transfusion as did 16.7 per cent of cases following Cesarean section seems to indicate a greater blood loss in the Cesarean section group.

The author shows a death rate of 14.5 per cent in sixty-nine cases of internal hemorrhage delivered by Cesarean section and only 2.9 per cent of thirty-four cases delivered by conservative measures. The author recommends highly vaginal and tight cervical pack plus the Spanish windlass abdominal binder. "Conservative measures give a better prognosis for the mother in both types of premature separation of the placenta."

### OPHTHALMOLOGY

By ROBERT J. WARNER, M.D.  
Doctors Building, Nashville

Glioma of the Retina Cured by Roentgen Rays. Scheyhing. *American Journal of Ophthalmology*, November, 1937.

So far only eight cases of glioma of the retina have been cured by roentgen rays. Scheyhing reports a case which had been under observation for almost ten years. A boy, whose right eye had shortly before been enucleated on account of glioma filling the vitreous, was brought to the eye clinic of Munchen for radiation of glioma of the left eye. Microscopic examination showed a typical glioma of the retina. Above and to the nasal side of the optic disc was a prominent grayish-white tumor of three-disc diameters with some blood vessels. It was surrounded by a number of very small prominent grayish-white dots in the retina. Vision was 5/5. Under roentgen radiation from December, 1927, to January, 1931, the tumor be-

came flatter with calcified infiltrations and pigment changes in the surroundings, vision remained 5/5. Toward the end of 1931 ectatic bluish vessels appeared in the conjunctiva and slight opacities in the posterior corticalis of the lens. As the growth of the tumor had been arrested radiations were discontinued. In 1934 the patient returned. The opacities of the lens had increased and in 1935 the cataract was extracted. In December, 1936, a membranous secondary cataract was operated on without complications. Corrected vision was 0.6. The tumor which had grown smaller and showed regressive changes was encircled by extensive atrophy of the choroid, apparently caused by the radiation.

### PEDIATRICS

By JOHN M. LEE, M.D.  
Doctors Building, Nashville

Endocrine Treatment of Vaginitis of Children. Robert M. Lewis, M.D., and Eleanor L. Adler, M.D. *The Journal of the American Medical Association*, December 4, 1937.

It has been shown that administration of estrogenic substance changes the thin vaginal mucosa of the child to that resembling the thick epidermis-like structure of the adult, which is more resistant to infection. The neutral or faintly acid secretion of the puerile vagina becomes strongly acid in reaction and inhibits growth of pathogenic organisms, especially gonococci. This effect is temporary, the mucosa and secretions reverting to the childhood state on withdrawal of medication.

The authors treated a small series of children having gonorrheal vaginitis with amniotin hypodermically and secured cures in an average of 24.2 days. TeLinde and Brawer used vaginal suppositories of amniotin in seventeen successive cases, curing all of them. This method proved more simple and effective than oral or hypodermic administration, is painless, and can be carried out by the mother. This form of treatment consists of insertion into the vagina each night at bedtime of one-half of an amniotin suppository. One-half of a suppository contains 1,000 international units of estrogenic substance. No douches are used. On an average the cases are cured in twenty-four days.

There were eighty-two cases treated by the above method at Bellevue Hospital and eighty were cured. Some patients in this group required treatment for many weeks before smears from the vagina showed no gonococci. In twenty-five of the above group, recurrences were observed, and it is the author's belief that these were very likely reinfections acquired from the same source as the original infection since there were other members of the family known to be infected in twelve instances. In these recurrent cases, the same treatment was repeated and the patients recovered more quickly than when treated for the original infection.

It is believed that all cases should be treated

for eight weeks at least. They should be kept under observation for one year, and kept from intimate contact with other girls for six months.

The authors feel that since only relatively small amounts of estrogenic substance are given in the suppositories, the treatment is not dangerous. They warn that the giving of large amounts of estrogenic substance over a long period of time may be dangerous.

### ROENTGENOLOGY

By FRANKLIN B. BOGART, M.D.  
Medical Arts Building, Chattanooga

The Action of Roentgen Rays or Radium on Inflammatory Processes. A. U. Desjardins. *Radiology*, Vol. 29, No. 4, p. 436, October, 1937.

The use of X-rays in the treatment of inflammatory disease is not new. The small doses used eliminate any possibility of temporary discomfort or permanent damage.

Conditions that may be treated with hope of relief may be grouped into acute and chronic inflammations.

1. *Acute Inflammations*.—A small dose is usually used, that is, one-fourth of an erythema dose, which may be repeated several times within a few days if necessary. The more acute the conditions the smaller the dose usually required. Moderate voltage, 140 kilovolts seems to give as good results as higher voltage, 200 kilovolts. Conditions that have been favorably influenced by roentgen irradiation are: pyogenic infections, pneumonia, parotitis, erysipelas, acute mastoiditis, gas-bacillus infection.

2. *Chronic Inflammations*.—Slightly larger doses of X-rays are required in the average chronic infection, that is, up to 300 to 500r, although this may be administered fractionally. As in acute infections the kilovoltage used does not seem to be important.

Chronic infections that yield to radiation are a variety of skin disorders, tuberculous adenitis, peritonitis, keratitis, and iritis. Actinomycosis, blastomycosis, trachoma in the early stages, and active infectious arthritis are also favorably influenced.

#### MODE OF ACTION

1. *Acute Inflammations*.—Only a brief summary of the rather extensive discussion can be given. Three facts are universally observed: (1) That in lesions treated early pain relief is prompt and in lesions treated late suppuration is accelerated; (2) that acute inflammations of different kinds respond at about the same rate to a given dose when treated at corresponding stages; and (3) that a small dose of radiation is sufficient to produce the effect. It has been shown experimentally that in a very few minutes following irradiation the lymphocytes begin to disintegrate. Polymorphonuclear leukocytes are also caused to disintegrate but less rapidly. It is supposed that the liberation of the enzymes and other active substances

contained in the inflammatory infiltrate is responsible for the rapid resolution of the inflammatory lesion following the irradiation.

2. *Chronic Inflammations*.—In chronic infections the effect on lymphocytes and polymorphonuclear leukocytes also takes place. Since the effect of X-rays on fibrous tissue is much less marked than on leukocytes, the results obtained in chronic infections is in direct proportion to the relative amount of leukocytes and fibrous tissue. If tuberculous lesions are taken as an example it is well known that the effect of irradiation is much greater during the infiltrative phase of the tubercle than later when, caseation, fibrosis or calcification has occurred.

### SURGERY—GENERAL AND ABDOMINAL

By BATTLE MALONE, II, M.D.  
1400 Monroe Avenue, Memphis

Treatment of Sluggishly Granulating Wounds. Wm. E. Lower, M.D., and Walter T. Buchert, M.D. *Surgical Clinics of North America*, October, 1937.

In treating a sluggishly healing wound one must first discover whether there is present any physiologic or pathologic process which might influence its healing. Factors such as age, diet, fluid intake, endocrine imbalance, and distant foci of infection influence wound healing. One must then determine whether the delay in repair is due to some general indication, a local cause, or a combination of both. The general health should be improved by giving a high caloric, high protein, high vitamin diet with the addition of concentrated vitamins, a liberal fluid intake and either natural or artificial heliotherapy.

In regard to endocrines, a pancreatic disturbance such as is found in diabetes causes slow healing. Even an impairment in carbohydrate tolerance, as determined by the glucose tolerance test, may delay healing. The proper administration of insulin in such cases will often effect prompt healing. Thyroid extract, given to fracture cases living in an area where goiter is endemic, aids in healing. Ulcers in hypothyroid patients heal much more rapidly when desiccated thyroid is administered.

Distant foci of infection may retard healing and should be removed. Ulcerative lesions are often associated with such conditions such as lues, sickle cell anemia, neurogenic lesions, circulatory diseases such as varicose veins, arteriosclerosis, embolism, thromboangiitis obliterans or Raynaud's disease. Here treatment is directed primarily to the underlying etiologic conditions. In the care of the wound itself Wolfer's five principles for the treatment of fresh wounds are listed as follows: prompt care, complete removal of devitalized and contaminated tissues, along with foreign bodies, complete hemostasis, accurate approximation of wound edges with obliteration of dead spaces, and immobilization of parts. On the other hand in old

infected wounds the important points are: adequate drainage, complete debridement, determination of the type of infection, gentleness in changing dressings and the application of some topical agent to lessen infection and stimulate healthy granulation.

Hot, wet dressings are of value chiefly in their poulticing action by permitting continuous drainage and the heat's increasing the local blood supply. Dakin's solution properly used is a valuable aid in cleaning up an infected wound. The disadvantages are: it is unstable, irritating to the skin and must be applied frequently. Azochloramide overcomes these disadvantages and its use is increasing.

Substances containing the sulphydryl radical are said to have a stimulating effect on healing. Some of these are thiocresol, cysteine, thioglycerol, and glutathione. Allantoin, a product of metabolism of both plants and animals, is useful and has been isolated from the excretion of maggots. Used in a 0.5 per cent solution it has given gratifying results in stimulating granulation.

The author emphasizes the fact that each case must be treated individually.

### UROLOGY

By TOM R. BARRY, M.D., F.A.C.S.

By G. A. WILLIAMSON, JR., M.D.

Medical Building, Knoxville

Late Results in the Conservative Management of Nephrolithiasis. J. T. Priestley and W. F. Braasch. *Journal of the American Medical Association*, November 20, 1937.

One hundred seventy-seven patients with nephrolithiasis were followed for eleven years. In sixty-six and two-thirds per cent operation was not advised because of the small size of the stone and absence of symptoms. In thirty-three and one-third per cent operation was advised but refused.

The majority were between thirty and sixty years of age, with an average of 46.4 per cent years. There were twice as many men as women. In forty-six cases the stones were bilateral, uni-

lateral in 131. A few of these patients progressed satisfactorily under medical treatment. Eighty-one per cent of the unilateral stones caused further symptoms, thirty-five per cent of which required surgery. Ninety-seven and eight-tenths per cent of the bilateral stones caused further symptoms, and in this group forty-five per cent of these demanded surgery. Ninety-six per cent of the cases who had previously had pain were not relieved, while sixty-six per cent of the silent stones caused subsequent symptoms. Large stones caused further symptoms, and necessitated operation oftener than small stones. Pelvic stones continued to have symptoms more often than stones located in the calyx.

Those with normal pyelograms caused serious symptoms less frequently than those which showed definite pathology. The presence of infection increased the incidence of symptoms. Kidneys with impaired function are more likely to require surgery than those with normal function.

### BOOK REVIEWS

#### DR. COLWELL'S DAILY LOG FOR PHYSICIANS

Dr. Colwell's "Daily Log for Physicians" is a book designed by a doctor for the use of doctors in keeping records of great practical importance.

There is a page for each day of the year. In addition to this, there are pages at the end of this book for a business summary. Included in the business summary is an expense sheet on which a doctor can keep an itemized statement of expense, all of which are deductible for income tax purposes.

The 1938 edition is an improvement over previous editions.

The price is \$6.00.

This book is published by the Colwell Publishing Company, Champaign, Illinois.

H. H. S.



# 1937 MEMBERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

The following list of members of the Tennessee State Medical Association is published in accordance with a provision in the constitution of the association.

The list of active members includes the names of those who were members on December 10, 1937.

The names of veteran members appear on a separate list following active members.

The arrangement of names is as follows:

The counties are arranged alphabetically. Towns

in each county are arranged alphabetically. Members in the towns are arranged alphabetically. Names of members residing outside the state are arranged alphabetically on a separate list under a separate heading.

A list of the members who have died during the year 1937 is published on the last page of this section.

If any errors are found kindly report them to the JOURNAL, 508 Doctors Building, Nashville.

<b>ANDERSON COUNTY</b> <i>Andersonville</i> W. L. Carden  <i>Clinton</i> O. E. Ballou A. J. Butler J. S. Hall H. D. Hicks Trent O. Huff Thos. Jennings H. Sirl Rule  <i>Coal Creek</i> J. M. Cox Geo. W. Kelley	A. M. Gamble A. E. Hardison G. D. Lequire W. B. Lovingood E. H. Lowe J. A. McCulloch J. M. McCulloch J. F. Manning Lester C. Olin C. C. Vinsant  <i>Townsend</i> E. W. Griffin  <i>Walland</i> J. M. Waters	<b>CANNON COUNTY</b> <i>Woodbury</i> J. F. Adams T. J. Bratton M. B. McCrary  <i>Carrollton</i> G. P. Hicks L. E. Trevathan  <i>Clarksburg</i> H. D. McGill R. B. Wilson  <i>Huntingdon</i> R. L. Douglass V. E. Massey	L. S. Nease E. E. Northcutt W. C. Ruble, Jr. Fred M. Valentine  <b>COFFEE COUNTY</b> <i>Manchester</i> J. H. Farrar  <b>CROCKETT COUNTY</b> <i>Bells</i> E. Farrow F. P. Hess S. E. McDonald  <i>Friendship</i> J. O. McKinney C. T. Nash W. H. Stallings  <i>Maury City</i> M. E. O'Neil  <i>Obion</i> J. C. Walker	Perry Bromberg Emmett E. Brown Robt. R. Brown Barney Brooks Clinton E. Brush Ray C. Burch John C. Burch L. E. Burch B. F. Byrd J. L. Bryan O. N. Bryan W. A. Bryan M. G. Buckner Jere W. Caldwell Lucien J. Caldwell Will Camp Geo. K. Carpenter Horton R. Casparis W. R. Cate John S. Cayce E. Gurney Clark W. J. Core Sam Cowan Henry M. Cox R. R. Crowe Carl R. Crutchfield M. M. Cullom J. W. T. Dabbs Murray B. Davis T. W. Davis Wm. A. Demonbreun R. C. Derivaux Paul DeWitt W. C. Dixon Beverly Douglas H. L. Douglas R. L. Dozier, Sr. R. L. Dozier, Jr. Bate Dozier John J. Eberhart L. W. Edwards Phillip C. Elliott Duncan Eve, Jr. W. Scott Farmer Walter O. Faught Joe W. Fenn W. F. Fessey R. O. Fessey R. E. Fort Dewey Foster Herbert C. Francis Thos. Fern Fris J. J. Frey Joseph F. Gallagher Robt. K. Galloway J. C. Gardner Hamilton V. Gayden Horace C. Gayden L. R. Gayden J. P. Gilbert McPheeters Glasgow E. W. Goodpasture C. G. Griffin R. W. Grizzard Thos. Grizzard H. Claude Guerin W. D. Haggard David W. Hailey Y. W. Haley C. M. Hamilton Earl Hamilton W. W. Handly W. M. Hardy A. W. Harris O. W. Harris Tinsley R. Harrison Jas. T. Hayes R. N. Herbert C. L. Hill J. Harvill Hite G. W. Holcomb A. N. Hollabaugh, Jr. Chas. F. Hollabaugh Daniel J. Johns	Hollis E. Johnson Geo. S. Johnson R. L. Jones R. H. Kampmeier Alvin E. Keller J. P. Keller W. G. Kennon Howard King J. A. Kirtley, Jr. R. K. Landis Leon M. Lanier Ralph M. Larsen W. P. Law W. S. Leathers John M. Lee John J. Lentz Jas. D. Lester Milton S. Lewis Wm. Litterer L. S. Love Walter M. Lott S. L. Lowenstein Frank H. Lutton Robt. H. Magruder Guy Milford Maness J. Owsley Manier Travis H. Martin W. D. Martin G. S. McClelland C. C. McClure Thos. D. McKinney C. S. McMurray Henry E. Melaney Cleo M. Miller T. A. Mitchell Theodore Morford, Jr. Walter M. Morgan Hugh J. Morgan P. G. Morrissey M. K. Moulder John J. Mullowney D. R. Neil Oscar G. Nelson Adam G. Nichol O. A. Oliver Eugene Orr James C. Overall Fred W. T. Overton John Overton H. E. Patey Edna S. Pennington J. C. Pennington Crit Pharris D. R. Pickens Cobb Pilcher Leonard Pogue Bruce P'Pool T. G. Pollard Paul E. Purks E. M. Regen James Seay Read W. E. Reynolds H. P. Rieger Elkin L. Rippey S. S. Riven E. L. Roberts H. C. Robertson J. P. Rogers S. T. Ross B. T. Ruicks John M. Saunders E. A. Sayers George F. Seeman Maurice Seligman Ewing Seligman D. C. Seward Trimble Sharber N. S. Shofner H. H. Shoulders H. S. Shoulders Ammie T. Sikes J. C. Guerin D. W. Smith Henry C. Smith	John W. Stevens Joe Strayhorn W. D. Strayhorn Herman Spitz Robt. E. Sullivan W. Albert Sullivan W. D. Sumpter Arthur J. Sutherland W. H. Tanksley Oscar Tannenbaum S. R. Teachout Pauline Tenzel C. S. Thomas H. M. Tigert W. Oakes Tirrill, Jr. C. C. Trabue Joseph Travenick, Jr. C. B. Tucker Harlan G. Tucker Edward L. Turner Wm. O. Vaughan Paul Warner R. J. Warner Albert Weinstein Bernard Weinstein A. L. White Samuel H. White T. A. Whitfield W. W. Wilkerson, Jr. Owen H. Wilson Jack Witherspoon W. W. Winters W. H. Witt R. E. Wyatt T. Hugh Young John B. Youmans Kate Savage Zerfoss Thos. B. Zerfoss
<i>Devonia</i> H. W. Hollingsworth  <i>Fork Mountain</i> Arthur R. Reynolds  <i>Norris</i> Horton DuBard  <i>Oliver Springs</i> J. T. Hayes H. E. Heacker Benton Mitchell	<b>BRADLEY COUNTY</b> <i>Charleston</i> B. P. Clark  <i>Cleveland</i> D. N. Arnold R. L. Bean W. B. Campbell E. R. Ferguson Wm. A. Garrett J. F. Gilbert R. O. Kibler J. L. McClary W. C. Sanford C. T. Speck W. C. Stansberry S. J. Sullivan W. A. Sullivan Claude H. Taylor Madison Trewitt	<i>McKenzie</i> S. W. Alexander J. H. Williams  <i>Trezevant</i> E. W. Hillsman  <i>Westport</i> C. T. Cox  <b>CARTER COUNTY</b> <i>Elizabethton</i> O. F. Agee C. B. Baughman E. L. Caudill H. B. Damron W. G. Frost Henry Packer E. T. Pearson J. B. Shoun P. S. Williams  <i>Watauga Valley</i> A. R. Collins	<b>CUMBERLAND COUNTY</b> <i>Crossville</i> V. O. Buttram W. S. Dooley V. L. Lewis E. W. Mitchell  <b>DAVIDSON COUNTY</b> <i>Dandeson</i> E. E. Anderson T. R. Guill  <i>Goodlettsville</i> S. J. Fentress  <i>Madison</i> George A. Droll Cyrus Eve Kendall R. Z. Linney Murlin Nester E. A. Sutherland Joe E. Sutherland Lew Ernest Wallace	Wm. A. Demonbreun R. C. Derivaux Paul DeWitt W. C. Dixon Beverly Douglas H. L. Douglas R. L. Dozier, Sr. R. L. Dozier, Jr. Bate Dozier John J. Eberhart L. W. Edwards Phillip C. Elliott Duncan Eve, Jr. W. Scott Farmer Walter O. Faught Joe W. Fenn W. F. Fessey R. O. Fessey R. E. Fort Dewey Foster Herbert C. Francis Thos. Fern Fris J. J. Frey Joseph F. Gallagher Robt. K. Galloway J. C. Gardner Hamilton V. Gayden Horace C. Gayden L. R. Gayden J. P. Gilbert McPheeters Glasgow E. W. Goodpasture C. G. Griffin R. W. Grizzard Thos. Grizzard H. Claude Guerin W. D. Haggard David W. Hailey Y. W. Haley C. M. Hamilton Earl Hamilton W. W. Handly W. M. Hardy A. W. Harris O. W. Harris Tinsley R. Harrison Jas. T. Hayes R. N. Herbert C. L. Hill J. Harvill Hite G. W. Holcomb A. N. Hollabaugh, Jr. Chas. F. Hollabaugh Daniel J. Johns	Hollis E. Johnson Geo. S. Johnson R. L. Jones R. H. Kampmeier Alvin E. Keller J. P. Keller W. G. Kennon Howard King J. A. Kirtley, Jr. R. K. Landis Leon M. Lanier Ralph M. Larsen W. P. Law W. S. Leathers John M. Lee John J. Lentz Jas. D. Lester Milton S. Lewis Wm. Litterer L. S. Love Walter M. Lott S. L. Lowenstein Frank H. Lutton Robt. H. Magruder Guy Milford Maness J. Owsley Manier Travis H. Martin W. D. Martin G. S. McClelland C. C. McClure Thos. D. McKinney C. S. McMurray Henry E. Melaney Cleo M. Miller T. A. Mitchell Theodore Morford, Jr. Walter M. Morgan Hugh J. Morgan P. G. Morrissey M. K. Moulder John J. Mullowney D. R. Neil Oscar G. Nelson Adam G. Nichol O. A. Oliver Eugene Orr James C. Overall Fred W. T. Overton John Overton H. E. Patey Edna S. Pennington J. C. Pennington Crit Pharris D. R. Pickens Cobb Pilcher Leonard Pogue Bruce P'Pool T. G. Pollard Paul E. Purks E. M. Regen James Seay Read W. E. Reynolds H. P. Rieger Elkin L. Rippey S. S. Riven E. L. Roberts H. C. Robertson J. P. Rogers S. T. Ross B. T. Ruicks John M. Saunders E. A. Sayers George F. Seeman Maurice Seligman Ewing Seligman D. C. Seward Trimble Sharber N. S. Shofner H. H. Shoulders H. S. Shoulders Ammie T. Sikes J. C. Guerin D. W. Smith Henry C. Smith	John B. Youmans Kate Savage Zerfoss Thos. B. Zerfoss  <i>Old Hickory</i> Vernon R. Beam T. W. Dailey R. A. Daniel Alvin Hawkins E. P. Johnson Ogle Jones E. B. Rhea
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<b>BLED SOE COUNTY</b> <i>Pikeville</i> J. P. Young, Jr.	<b>BLEDSOE COUNTY</b> <i>Jellico</i> Geo. B. Brown S. S. Brown W. D. Gibson J. L. Heffernan Frank J. Slemmons	<b>CLAIBORNE COUNTY</b> <i>New Tazewell</i> H. C. Evans George L. Rea	<b>CLAIBORNE COUNTY</b> <i>New Tazewell</i> H. C. Evans George L. Rea	<b>DAVIDSON COUNTY</b> <i>Dandeson</i> E. E. Anderson T. R. Guill	Hollis E. Johnson Geo. S. Johnson R. L. Jones R. H. Kampmeier Alvin E. Keller J. P. Keller W. G. Kennon Howard King J. A. Kirtley, Jr. R. K. Landis Leon M. Lanier Ralph M. Larsen W. P. Law W. S. Leathers John M. Lee John J. Lentz Jas. D. Lester Milton S. Lewis Wm. Litterer L. S. Love Walter M. Lott S. L. Lowenstein Frank H. Lutton Robt. H. Magruder Guy Milford Maness J. Owsley Manier Travis H. Martin W. D. Martin G. S. McClelland C. C. McClure Thos. D. McKinney C. S. McMurray Henry E. Melaney Cleo M. Miller T. A. Mitchell Theodore Morford, Jr. Walter M. Morgan Hugh J. Morgan P. G. Morrissey M. K. Moulder John J. Mullowney D. R. Neil Oscar G. Nelson Adam G. Nichol O. A. Oliver Eugene Orr James C. Overall Fred W. T. Overton John Overton H. E. Patey Edna S. Pennington J. C. Pennington Crit Pharris D. R. Pickens Cobb Pilcher Leonard Pogue Bruce P'Pool T. G. Pollard Paul E. Purks E. M. Regen James Seay Read W. E. Reynolds H. P. Rieger Elkin L. Rippey S. S. Riven E. L. Roberts H. C. Robertson J. P. Rogers S. T. Ross B. T. Ruicks John M. Saunders E. A. Sayers George F. Seeman Maurice Seligman Ewing Seligman D. C. Seward Trimble Sharber N. S. Shofner H. H. Shoulders H. S. Shoulders Ammie T. Sikes J. C. Guerin D. W. Smith Henry C. Smith	John B. Youmans Kate Savage Zerfoss Thos. B. Zerfoss  <i>Old Hickory</i> Vernon R. Beam T. W. Dailey R. A. Daniel Alvin Hawkins E. P. Johnson Ogle Jones E. B. Rhea

**DYER COUNTY***Dyersburg*

E. H. Baird  
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J. P. Baird  
J. B. Berry  
J. D. Brewer  
G. B. Brown  
James B. Cochran  
Perry Conyers  
C. L. Denton  
J. A. Ledbetter  
B. G. Marr  
A. H. Moody  
B. W. Patton  
J. G. Price  
C. A. Turner  
N. S. Walker  
W. P. Watson

*Finley*

Luther Edwards

*Newbern*

D. T. Holland  
John Frazier  
E. T. Haskins  
J. W. Wynne

*Tigrett*

P. E. Miller

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*Gallaway*

W. B. Battle

*Moscow*

M. B. Feemster

*Oakland*

L. D. McAuley

*Rossville*

F. K. West

*Somerville*

H. L. Armstrong  
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J. Perry Sloan

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**FRANKLIN COUNTY***Huntland*

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*Sewanee*

John M. Hardy  
R. M. Kirby-Smith

*Sherwood*

George E. Bogart

*Winchester*

W. E. Lindsay  
Alfred Parker Smith  
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L. A. Templeton

**GIBSON COUNTY***Bradford*

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*Dyer*

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John Jackson  
R. L. Newman

*Gibson*

Robt. Morris  
J. H. Rozzell

*Humboldt*

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G. W. Penn  
George E. Spangler

*Medina*

I. W. Oliver

*Milan*

H. P. Clemmer  
R. F. Hughes  
F. L. Keil

*Rutherford*

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Wm. F. Bell

*Trenton*

J. O. Barker  
B. T. Bennett  
R. Faulkner  
W. C. McRee  
F. L. Roberts  
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*Yorkville*

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*Bethel*

L. A. Edmondson

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Joe B. Wright

*Minor Hill*

A. N. Doyle

*Pulaski*

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T. F. Booth  
A. W. Deane  
E. M. Fuqua  
F. C. Games  
F. B. Hulme  
W. J. Johnson  
John H. Morris  
J. I. Speer  
R. E. Warren

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F. C. Brittan  
S. T. Brumley  
S. T. Campbell  
L. E. Coolidge  
R. S. Cowles  
N. H. Crews  
L. E. Dyer  
R. P. Evans  
C. P. Fox, Sr.  
C. P. Fox, Jr.  
Haskell W. Fox  
R. B. Gibson  
R. D. Keller  
C. B. Loughlin  
W. T. Mathes  
I. E. Phillips

*Mosheim*

M. A. Blanton  
Hal Hendrix

*Monteale*

Wm. A. Brewer  
W. A. Jackson  
T. F. Taylor

*Palmer*

O. H. Clements

*Pelham*

U. B. Bowden

*Monteale*

Wm. A. Brewer  
W. A. Jackson  
T. F. Taylor

*Palmer*

O. H. Clements

*Pelham*

U. B. Bowden

*Monteale*

Wm. A. Brewer  
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*Monteale*

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T. F. Taylor

*Palmer*

O. H. Clements

*Pelham*

U. B. Bowden

*Monteale*

Wm. A. Brewer  
W. A. Jackson  
T. F. Taylor

*Palmer*

O. H. Clements

*Pelham*

U. B. Bowden

*Monteale*

Wm. A. Brewer  
W. A. Jackson  
T. F. Taylor

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E. S. Blair

*Chattanooga*

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W. D. Anderson  
Wm. E. Anderson  
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H. M. Ausherman  
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S. H. Barrett  
Alvin H. Benz  
J. L. Bibb  
E. L. Bishop  
O. L. Blackwell  
T. R. Blanks  
F. B. Bogart  
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J. C. Brooks  
L. P. Brooks  
Wm. E. Bryan  
E. F. Buchner  
W. R. Buttram  
Earl R. Campbell  
Cleo Chastam  
Ben P. Clark  
Rupert M. Colemore  
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Tolbert C. Crowell  
Doyle E. Currey  
T. Lyles Davis  
E. M. DeLay  
Paul H. Dietrich  
A. F. Ebert  
J. C. Eldridge  
S. A. Fowler  
R. R. Fancher  
John B. Fitts  
H. Quigg Fletcher  
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O. C. Gass  
E. A. Gilbert  
A. W. Gross  
C. H. Gurney  
Russell Hackney  
J. L. Hamilton  
H. H. Hampton  
Frank Harris  
E. M. Harrison  
Carl A. Hartung  
John B. Haskins  
G. P. Haymore  
Chas. R. Henry  
H. P. Hewitt  
Homer D. Hickey  
W. J. Hillas  
J. F. Hobbs  
J. McC. Hoghead  
Howard T. Holden  
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O. G. Hughes  
P. R. Hysinger  
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Burton L. Jacobs  
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Chester L. Lassiter  
Hiram A. Laws  
Stewart Lawwill  
Phillip H. Levinson  
H. D. Long  
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E. H. Magee  
T. J. Manson  
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Fred E. Marsh  
John R. Martin  
M. A. Meacham  
Fay B. Murphy  
J. B. McGhee  
Fred C. McIsaacs  
J. D. L. McPheeters  
Chas. McVea  
J. E. Nelson  
Ceil E. Newell  
E. Dunbar Newell  
F. T. Newell  
A. M. Patterson  
J. B. Phillips  
C. T. Read  
W. D. L. Record  
W. A. Reed  
E. E. Reisman, Jr.  
E. E. Reisman  
Herman Renner

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*Paris*

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R. Graham Fish  
J. H. Jones  
Barton McSwain  
Geo. R. McSwain  
J. H. McSwain  
A. A. Oliver  
W. G. Rhea  
Elroy Scruggs  
Henriette Veltman  
M. C. Wiggins

*Puryear*

A. F. Paschal

*Springville*

R. J. Perry

*Daissy*

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## INDEX OF VOLUME XXX

## SUBJECTS

Abscess, Perinephritic, with Review of Local Cases—Elkin L. Rippy, M.D., F.A.C.S., Nashville .....	393	Deliveries, Management of Home—Harry H. Jenkins, M.D., Knoxville .....	211
Abstract of the Literature on Prontosil, An—Eugene Rosamond, A.B., M.D., Memphis .....	200	Delivery, Repair of Old Lacerations at Time of—W. T. Pride, M.D., Memphis .....	127
Abstracts of Current Literature.....	37, 77, 114, 145, 185, 226, 268, 306, 378, 418, 455, 498	Diabetic, Infection and Trauma in the—James S. Read, M.D., Nashville .....	368
Allergy—R. B. Wood, M.D., Knoxville.....	240	Diphtheria Control Program for Tennessee, The—W. C. Williams, M.D., Commissioner of Public Health, Nashville .....	49
Ambulatory Ligation at the Sapheno-Femoral Junction with Retrograde and Supplementary Injections for Varicose Veins—William D. Haggard, M.D., and James A. Kirtley, Jr., M. D., Nashville .....	432	Editorial .....	24, 67, 102, 137, 178, 215, 256, 298, 372, 411, 439, 487
Amblyopia, Two Cases of Quinine, Associated with Retinitis Pigmentosa—E. C. Ellett, M.D., Memphis .....	174	Endocrine Disturbances Affecting Menstruation—John C. Burch, M.D., Nashville .....	407
Anorectal Examination and Certain Anal Diseases: Cryptitis, Papillitis, Fissure, and Fistula—Louis A. Buie, M.D., Section on Proctology, The Mayo Clinic, Rochester, Minnesota .....	468	Enuresis—William E. Van Order, M.D., Chattanooga .....	1
An Analysis of Certain Principles and Proposals Drafted and Promulgated by a Self-Appointed Group of Doctors—H. H. Shoulders, M.D., F.A.C.S., Nashville .....	481	Epilepsy—Carroll C. Turner, M.D., and Nicholas Gotten, M.D., F.A.C.S., Memphis .....	249
Autonomic Nervous System, Present Status of Surgery of the—Thos. D. McKinney, M.D., F.A.C.S., Nashville .....	51	Extrauterine Pregnancy of Long Duration, with Report of a Case of Sixteen Months' Duration—P. E. Parker, M.D., Johnson City .....	163
Bilateral Cystic Teratomata of the Ovaries (Report of a Case with Slides)—Cecil E. Newell, M.D., M.S., in Surg., F.A.C.S., Chattanooga .....	166	Fractures: A Few Basic Principles of the Treatment—Robert Crawford Robertson, M.D., F.A.C.S., Chattanooga .....	280
Book Review.....	118, 311, 422, 502	Fractures of the Face, Treatment of—Robert Patterson, M.D., Knoxville .....	273
Bursitis, "So-Called Subacromial"—Chas. F. Clayton, Jr., M.D., M.Sc. (Med.), Knoxville .....	92	Gas Gangrene—Its Prevention and Treatment—Battle Malone, B.A., M.D., Memphis .....	402
Campaign, The Syphilis .....	463	Glaucoma, The Management of—A. H. Benz, M.D., Chattanooga .....	57
Certain Anal Diseases, Anorectal Examination and: Cryptitis, Papillitis, Fissure, and Fistula—Louis A. Buie, M.D., Section on Proctology, The Mayo Clinic, Rochester, Minnesota .....	468	Hearing Aids, A New Departure in—Frank L. Alloway, M.D., Kingsport .....	99
Children, Rheumatic Fever in, with Report of Case—Robt. F. Thomas, M.D., Sevierville .....	119	Heart Disease, The Surgical Treatment of Certain Types of—Alfred Blalock, M.D., and Tinsley R. Harrison, M.D., Nashville .....	292
Committees .....	35, 73, 113, 142, 223, 265, 305, 377, 417, 453, 495	Hernia, Injection Treatment of—Norman L. Higinbotham, M.D., New York .....	385
Constitution, By-Laws, and Principles of Medical Ethics of the Tennessee State Medical Association, Revised, 1936 .....	7	Home Deliveries, Management of—Harry H. Jenkins, M.D., Knoxville .....	211
Coronary Artery Disease—E. R. Timmons, M.D., Grand Junction .....	391	House of Delegates, Proceedings of, One Hundred Fourth Annual Meeting, Tennessee State Medical Association, Andrew Johnson Hotel, Knoxville, Tennessee .....	313
Coronary Artery Disease with Unusual and Dramatic Sequelae—Douglas D. Vance, M.D., Bristol .....	124	Index to Proceedings of the House of Delegates .....	367
Deaths.....	31, 69, 138, 179, 216, 261, 373, 412, 444, 489	Infection and Trauma in the Diabetic—James S. Read, M.D., Nashville .....	368
		Injection Treatment of Hernia, The—Norman L. Higinbotham, M.D., New York .....	385
		Intestinal Obstruction (Acute Mechanical)—Richard A. Barr, M.D., Nashville .....	132
		Intracranial Tumors, Unusual Types of, Reports of Five Cases—Cobb Pilcher, M.D., Nashville .....	191

Jurisprudence, Obstetric—H. P. Hewitt, B.S., M.D., F.A.C.S., Chattanooga-----	286	with Report of a Case of Sixteen Months' Duration—P. E. Parker, M.D., Johnson City	163
Lacerations, Repair of Old, at Time of Delivery W. T. Pride, M.D., Memphis-----	127	Present Status of Surgery of the Autonomic Nervous System—Thos. D. McKinney, M.D., F.A.C.S., Nashville-----	51
List of Officers of the Tennessee State Medical Association-----	36, 74, 112, 141, 182, 222, 264, 304, 376, 416, 452, 494	Presidential Address—W. L. Williamson, M.D., Memphis-----	159
Malignancy of the Head and Neck, Roentgen Therapy of—Vincent W. Archer, B.S., M.D., and Walter D. Hankins, M.D., Professor of Radiology, University of Virginia, Charlottesville, Virginia-----	203	Principles and Proposals Drafted and Promulgated by a Self-Appointed Group of Doctors, An Analysis of Certain—H. H. Shoulders, M.D., F.A.C.S., Nashville-----	481
Malnutrition, Obesity and—Henry B. Gotten, M.D., 20 S. Dunlap, Memphis-----	61	Proceedings of the House of Delegates, One Hundred Fourth Annual Meeting, Tennessee State Medical Association, Andrew Johnson Hotel, Knoxville, Tennessee-----	313
Management of Glaucoma, The—A. H. Benz, M.D., Chattanooga-----	57	Program of the Tennessee State Medical Association, Tentative, Scientific-----	105
Management of Home Deliveries, The—Harry H. Jenkins, M.D., Knoxville-----	211	Prontosil, An Abstract of the Literature on—Eugene Rosamond, M.D., Memphis-----	200
Medical Services and the Public—Chas. Gordon Heyd, B.A., M.D., F.A.C.S., New York City-----	153	Prostate, Some Details in Management of Cases of Enlargement of the—J. C. Pennington, M.D., and Earl C. Lowry, M.D., Nashville-----	83
Medical Societies-----	33, 71, 109, 140, 181, 221, 266, 302, 375, 414, 450, 492	Public, The, and Medical Services—Chas. Gordon Heyd, B.A., M.D., F.A.C.S., New York--	153
Membership Roster-----	503	Public Health Activities in Tennessee--	409, 448, 497
Menorrhagia, A Study of 550 Cases of Chronic Cystic, Eroded Cervicitis and Endometrial Hyperplasia, Menopausal—Edward Thomas Newell, B.S., M.D., F.A.C.S., Chattanooga--	425	Quinine Amblyopia, Two Cases of, Associated with Retinitis Pigmentosa—E. C. Ellett, M.D., Memphis-----	174
Menstruation, Endocrine Disturbances Affecting—John C. Burch, M.D., Nashville-----	407	Repair of Old Lacerations at Time of Delivery—W. T. Pride, M.D., Memphis-----	127
New Departure in Hearing Aids, A—Frank L. Alloway, M.D., Kingsport-----	99	Resolutions-----	70, 106, 138, 261, 300, 412, 444, 489
News Notes and Comments-----	31, 70, 107, 140, 179, 216, 263, 302, 373, 413, 446, 490	Retinitis Pigmentosa, Two Cases of Quinine Amblyopia Associated with—E. C. Ellett, M.D., Memphis-----	174
Obesity and Malnutrition—Henry B. Gotten, M.D., 20 S. Dunlap, Memphis-----	61	Roentgen Therapy of Malignancy of the Head and Neck—Vincent W. Archer, B.S., M.D., and Walter D. Hankins, M.D., Professor of Radiology, University of Virginia, Charlottesville, Virginia-----	203
Obstetric Jurisprudence—H. P. Hewitt, B.S., M.D., F.A.C.S., Chattanooga-----	286	Rheumatic Fever in Children with Report of a Case—Robert F. Thomas, M.D., Sevierville	119
Other Medical Societies-----	75, 111, 144, 184, 225, 267, 415, 454, 496	So-Called "Subacromial Bursitis"—Chas. F. Clayton, Jr., M.D., M.Sc. (Med.), Knoxville	92
Outline and Resume of Work Done and to Be Done in Postgraduate Obstetrical Course—Frank E. Whitacre, M.D., Memphis-----	245	Some Details in Management of Cases of Enlargement of the Prostate—Jefferson C. Pennington, M.D., and Earl C. Lowry, M.D., Nashville-----	83
Ovaries, Bilateral Cystic Teratomata of the (Report of a Case with Slides)—Cecil E. Newell, M.D., M.S. in Surg., F.A.C.S., Chattanooga-----	166	Study of 550 Cases of Chronic Cystic, Eroded Cervicitis and Endometrial Hyperplasia, Menopausal Menorrhagia, A—Edward Thomas Newell, B.S., M.D., F.A.C.S., Chattanooga-----	425
Oxygen Therapy, Subcutaneous—Watt Yeiser, M.D., Columbia-----	5	Surgical Treatment of Certain Types of Heart Disease, The—Alfred Blalock, M.D., and Tinsley R. Harrison, M.D., Nashville-----	292
Perinephritic Abscess with Review of Local Cases—Elkin L. Rippey, M.D., F.A.C.S., Nashville-----	393	Subcutaneous Oxygen Therapy—Watt Yeiser, M.D., Columbia-----	5
Postgraduate Obstetrical Course, Outline and Resume of Work Done and to Be Done—Frank E. Whitacre, M.D., Memphis-----	245		
Pregnancy, Extrauterine, of Long Duration,			



Sulfanilamide in Gonorrhea—H. P. Hyde, M.D., Copperhill .....	390	Clark, E. Gurney, M.D., Nashville—"Treatment as a Factor in the Control of Syphilis" .....	231
Syphilis Campaign, The .....	463	Clayton, Chas. F., Jr., M.D., M.Sc. (Med.), Knoxville — "So-Called 'Subacromial Bursitis'" .....	92
Syphilis, Treatment as a Factor in the Control of—E. Gurney Clark, M.D., Nashville .....	231	Douglass, Henry L., M.D., Nashville, and L. W. Edwards, M.D., Nashville—"Ureteroenterostomy—A Combination of the Coffey, Ferguson, and Brenizer Methods" .....	41
Tentative Scientific Program of the Tennessee State Medical Association .....	105	Edwards, L. W., M.D., Nashville, and Henry L. Douglass, M.D., Nashville—"Ureteroenterostomy—A Combination of the Coffey, Ferguson, and Brenizer Methods" .....	41
Trauma, Infection and, in the Diabetic—James S. Read, M.D., Nashville .....	368	Ellett, E. C., M.D., Memphis—"Two Cases of Quinine Amblyopia Associated with Retinitis Pigmentosa" .....	174
Treatment as a Factor in the Control of Syphilis—E. Gurney Clark, M.D., Nashville .....	231	Gotten, Henry B., M.D., 20 S. Dunlap, Memphis—"Obesity and Malnutrition" .....	61
Treatment of Fractures of the Face—Robert Patterson, M.D., Knoxville .....	273	Gotten, Nicholas, M.D., F.A.C.S., Memphis, and Carroll C. Turner, M.D., Memphis—"Epilepsy" .....	249
Tumors, Unusual Types of Intracranial, Reports of Five Cases—Cobb Pilcher, M.D., Nashville .....	191	Haggard, William D., M.D., Nashville, and James A. Kirtley, Jr., M.D., Nashville—"Ambulatory Ligation at the Sapheno-Femoral Junction with Retrograde and Supplementary Injections for Varicose Veins" .....	432
Two Cases of Quinine Amblyopia Associated with Retinitis Pigmentosa—E. C. Ellett, M.D., Memphis .....	174	Hankins, Walter D., M.D., Professor of Radiology, University of Virginia, Charlottesville, Virginia, and Vincent W. Archer, M.D., Charlottesville, Virginia—"Roentgen Therapy of Malignancy of the Head and Neck" .....	203
Unusual Types of Intracranial Tumors, Reports of Five Cases—Cobb Pilcher, M.D., Nashville .....	191	Harrison, Tinsley R., M.D., Nashville, and Alfred Blalock, M.D., Nashville—"The Surgical Treatment of Certain Types of Heart Disease" .....	292
Ureteroenterostomy, A Combination of the Coffey, Ferguson, and Brenizer Methods—L. W. Edwards, M.D., and Henry L. Douglass, M.D., Nashville .....	41	Hewitt, H. P., B.S., M.D., F.A.C.S., Chattanooga—"Obstetric Jurisprudence" .....	286
Urology—H. P. Hyde, M.D., Copperhill .....	390	Heyd, Chas Gordon, B.A., M.D., F.A.C.S., New York City—"Medical Services and the Public" .....	153
Varicose Veins, Ambulatory Ligation at the Sapheno-Femoral Junction with Retrograde and Supplementary Injections for—William D. Haggard, M.D., and James A. Kirtley, Jr., M.D., Nashville .....	432	Higinbotham, Norman L., M.D., New York—"The Injection Treatment of Hernia" .....	385
Woman's Auxiliary .....	32, 70, 108, 139, 179, 220, 263, 374, 413, 449,	Hyde, H. P., M.D., Copperhill—"Urology" .....	390

## AUTHORS

Alloway, Frank L., M.D., Kingsport—"A New Departure in Hearing Aids" .....	99
Archer, Vincent W., B.S., M.D., Charlottesville, Virginia, and Walter D. Hankins, M.D., Professor of Radiology, University of Virginia, Charlottesville, Virginia—"Roentgen Therapy of Malignancy of the Head and Neck" .....	203
Barr, Richard A., M.D., Nashville—"Intestinal Obstruction (Acute Mechanical)" .....	132
Benz, A. H., M.D., Chattanooga—"The Management of Glaucoma" .....	57
Blalock, Alfred, M.D., Nashville, and Tinsley R. Harrison, M.D., Nashville—"The Surgical Treatment of Certain Types of Heart Disease" .....	292
Buie, Louis A., M.D., Section on Proctology, The Mayo Clinic, Rochester, Minnesota—"Anorectal Examination and Certain Anal Diseases: Cryptitis, Papillitis, Fissure, and Fistula" .....	468
Burch, John C., M.D., Nashville—"Endocrine Disturbances Affecting Menstruation" .....	407

Newell, Cecil E., M.D., M.S. in Surg., F.A.C.S., Chattanooga—"Bilateral Cystic Teratomata of the Ovaries" (Report of a Case with Slides) -----	166	Rosamond, Eugene, A.B., M.D., Memphis—"An Abstract of the Literature on Prontosil"-----	200
Newell, Edward Thomas, B.S., M.D., F.A.C.S., Chattanooga—"A Study of 550 Cases of Chronic Cystic, Eroded Cervicitis and Endometrial Hyperplasia, Menopausal Menorrhagia" -----	425	Shoulders, H. H., M.D., F.A.C.S., Nashville—"An Analysis of Certain Principles and Proposals Drafted and Promulgated by a Self-Appointed Group of Doctors"-----	481
Parker, P. E., M.D., Johnson City—"Extrauterine Pregnancy of Long Duration with Report of a Case of Sixteen Months' Duration" -----	163	Thomas, Robert F., M.D., Sevierville—"Rheumatic Fever in Children with Report of a Case" -----	119
Patterson, Robert, M.D., Knoxville—"Treatment of Fractures of the Face"-----	273	Timmons, E. R., M.D., Grand Junction—"Coronary Artery Disease"-----	391
Pennington, Jefferson C., M.D., Nashville, and Earl C. Lowry, M.D., Nashville—"Some Details in Management of Cases of Enlargement of the Prostate"-----	83	Turner, Carroll C., M.D., Memphis, and Nicholas Gotten, M.D., F.A.C.S., Memphis—"Epilepsy" -----	249
Pilcher, Cobb, M.D., Nashville — "Unusual Types of Intracranial Tumors—Reports of Five Cases" -----	191	Whitacre, Frank E., M.D., Memphis—"Outline and Resume of Work Done and to Be Done in Postgraduate Obstetrical Course"--	245
Pride, W. T., M.D., Memphis—"Repair of Old Lacerations at Time of Delivery"-----	127	Williams, W. C., M.D., Commissioner of Public Health, Nashville—"The Diphtheria Control Program for Tennessee"-----	49
Read, James S., M.D., Nashville—"Infection and Trauma in the Diabetic"-----	368	Williamson, W. L., M.D., Memphis—"Presidential Address" -----	159
Rippy, Elkin L., M.D., F.A.C.S., Nashville—"Perinephritic Abscess with Review of Local Cases" -----	393	Wood, R. B., M.D., Knoxville—"Allergy"-----	240
Robertson, Robert Crawford, M.D., F.A.C.S., Chattanooga — "Fractures: A Few Basic Principles of Treatment"-----	280	Vance, Douglas D., M.D., Bristol—"Coronary Artery Disease with Unusual and Dramatic Sequelae" -----	124
		Van Order, William E., M.D., Chattanooga—"Enuresis" -----	1
		Yeiser, Watt, M.D., Columbia—"Subcutaneous Oxygen Therapy" -----	5

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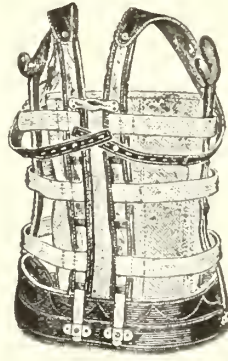
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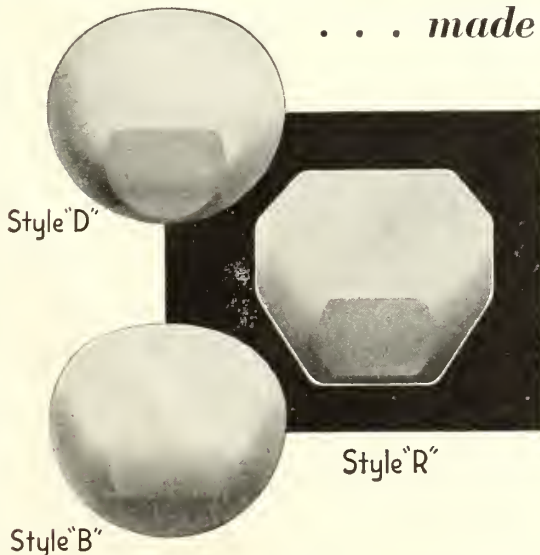
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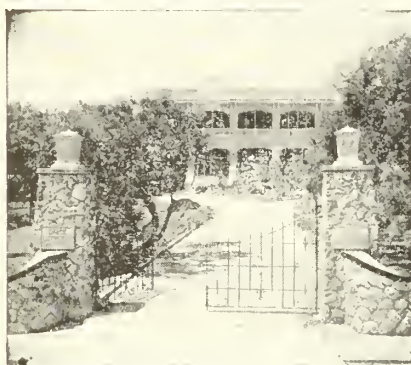
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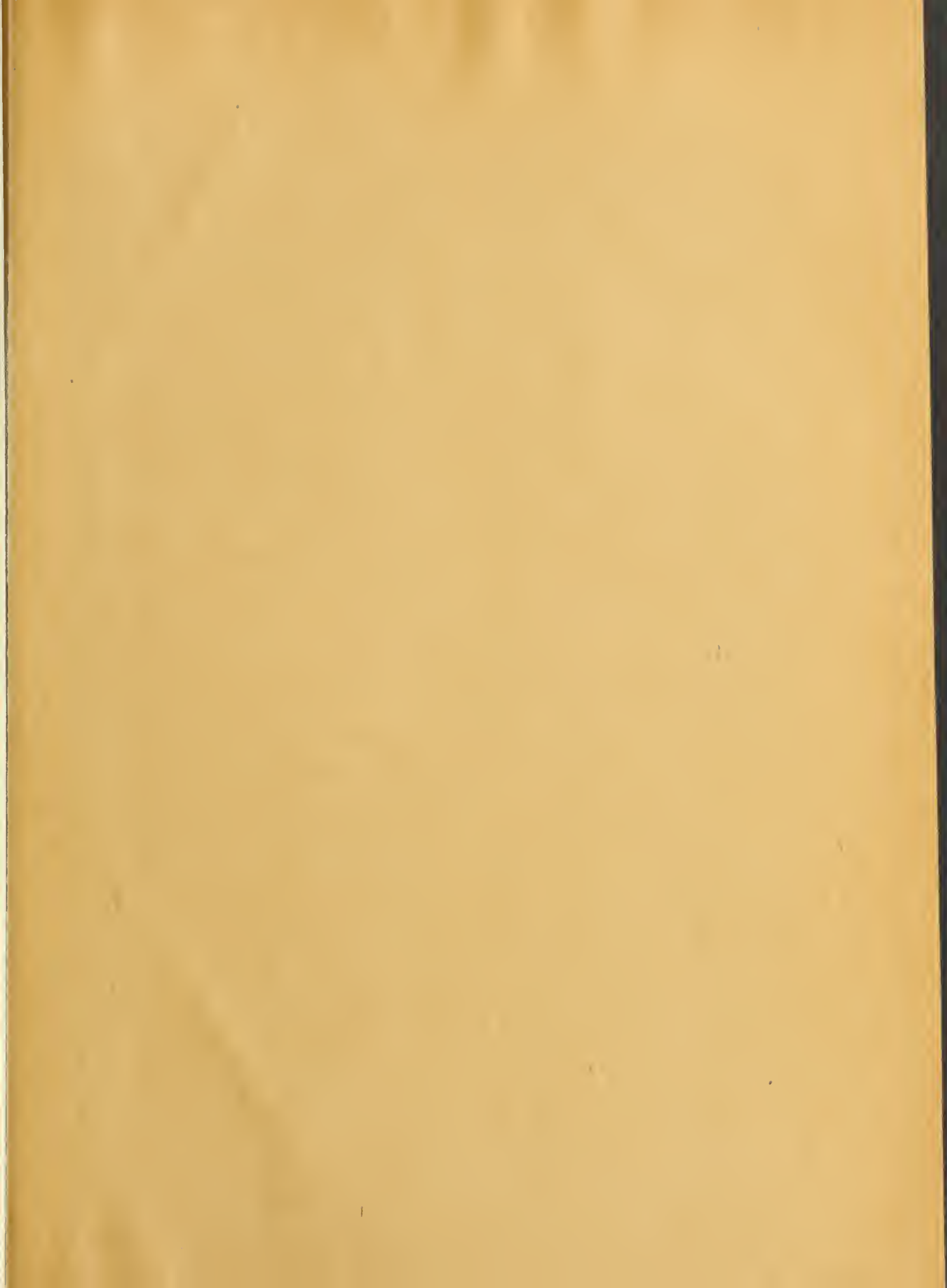
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